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GROUNDWATER AND SOIL INVESTIGATION REPORT AT POLARIS PARK HOUSING
SITES NSB NEW LONDON CT
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TETRA TECH

**GROUNDWATER AND SOIL
INVESTIGATION REPORT**

AT

POLARIS PARK HOUSING SITES

**NAVAL SUBMARINE BASE - NEW LONDON
GROTON, CONNECTICUT**

**COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT**

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1.0 INTRODUCTION

This soil and groundwater investigation report was prepared under the Comprehensive Long-Term Environmental Action Navy (CLEAN) Contract No. N62470-08-D-1001, Contract Task Order (CTO) WE56. The Statement of Work (SOW) for CTO WE56 directed Tetra Tech to develop a work plan to determine the horizontal and vertical extent of impacted soils and whether No. 2 fuel oil related constituents are present in soil and groundwater at concentrations exceeding the applicable Connecticut Department of Environmental Protection (CT DEP) Remediation Standard Regulations RSRs - Residential Direct Exposure Criteria (DEC) and Pollutant Mobility Criteria (PMC) for soil; and Ground Water Protection Criteria (GWPC), Surface Water Protection Criteria (SWPC), and Volatilization Criteria (VC) for groundwater at the Polaris Park Housing Sites near the Naval Submarine Base New London (NSB NLON) in Groton, Connecticut. This report presents a summary of the sampling data and provides recommendations for further action based on the data collected during sampling completed in May and June 2010.

The purpose of this soil and groundwater investigation report is to present the findings of the soil boring and monitoring well installation, and soil and groundwater sampling activities conducted from May 2010 through June 2010 at Polaris Park. This report includes the following sections:

- Section 1.0 provides an introduction and a description of the subject property;
- Section 2.0 provides a summary of all soil boring and well installation and groundwater sampling activities that were completed during May and June 2010;
- Section 3.0 presents the findings and analytical results from soil and groundwater samples collected during May and June 2010, with a comparison of results to the applicable Connecticut RSR criteria; a preliminary risk screening evaluation which includes an analysis of fate and transport and migration pathways and potential receptors;
- Section 4.0 provides conclusions based on the data collected during sampling, with recommendations for future action based on the requirements of Connecticut regulations.

Appendices are included to support the text of this monitoring report. **Appendix A** contains soil boring logs prepared during monitoring well drilling activities; **Appendix B** contains monitoring well construction logs; **Appendix C** contains monitoring well development logs; **Appendix D** contains groundwater sampling log sheets; **Appendix E** contains sample chain-of-custody forms; **Appendix F** contains full

laboratory reports; **Appendix G** contains investigation derived waste (IDW) characterization and disposal paperwork; and **Appendix H** contains the data validation packages.

1.1 SITE DESCRIPTION

This section provides background information on the Polaris Park Site 6 area (hereafter referred to as “Polaris Park” or the “site”), a summary of previous environmental activities conducted at the site, a summary of the current environmental setting and a discussion of the applicable regulatory guidelines that are applicable to the site.

1.1.1 Site Background Information

NSB NLON is located in Groton, Connecticut, on the east bank of the Thames River approximately 6 miles north of Long Island Sound (**Figure 1-1**). NSB NLON is the home port for attack submarines with the main base occupying more than 687 acres. An additional 530 acres are used for housing Navy families.

Polaris Park is located in Groton, Connecticut, approximately 54 miles southeast of Hartford, Connecticut. It is situated approximately 3,000 feet east of the Thames River along the west side of State Route 12 and approximately 0.5-mile south of the main NSB NLON complex (**Figure 1-1**). Thirty base housing structures within Polaris Park were demolished in 2009. As part of the demolition work, 21 underground storage tanks (USTs) were removed. The USTs were used to store No. 2 fuel oil (residential home heating oil). Evidence of residual petroleum hydrocarbons was detected in soil and observed in groundwater during the removal of the USTs at 4 of the 21 UST locations. These four locations include three former USTs from housing locations along Andrew Jackson Drive and one former UST from housing locations along Lafayette Drive (**Figure 1-2**).

Historically, the Site 6 area served as base housing. This area is currently at grade and unused since the residential related structures were demolished in 2009. However, the area surrounding Site 6 continues to serve as base housing. Future use plans for the Site 6 area include residential housing-related uses.

1.1.2 Previous Environmental Investigations at Subject Properties

In this section, a more detailed description of the removal actions performed to date at the four subject properties is provided.

Under contract to the Navy, Balfour Beatty Company retained Charter Environmental, Inc. (Charter Environmental) in 2009 to demolish selected housing units and to remove associated USTs. As previously stated, evidence of petroleum hydrocarbons were detected in soil and observed in groundwater at four of the excavated UST locations. The first impacted location where a UST was removed was 46-47 Lafayette Drive. This location slopes steeply to the east. This UST, a 2,000-gallon single wall steel tank that supplied fuel oil to the houses was removed in November 2008. Extractable Total Petroleum Hydrocarbons (ETPH) were detected in the soil at concentrations exceeding the CT DEP Residential DEC (500 parts per million [ppm]). The contractor removed approximately 1,200 cubic yards of soil and 20,000 gallons of oily water (believed to be groundwater seepage from the tank field). Under the existing contract, soil excavation was terminated and the excavation backfilled; however, residual contaminated soil was presumably left in place at that time.

In addition to this location, three other 1,000-gallon No. 2 fuel oil USTs were excavated from three locations along Andrew Jackson Drive. These USTs were located at 8, 11, and 12 Andrew Jackson Drive, respectively. A release of petroleum hydrocarbons was detected at each of these locations. Soil from each UST area was subsequently over-excavated of any apparent impacted soil and then backfilled to bring the area to grade. No detailed information regarding the excavation of the UST areas was provided in the Charter Environmental Report (2009). The report states only that the excavated UST areas were backfilled with crushed concrete (which was recycled during the demolition activities) in order to bring the areas back to grade level.

1.2 ENVIRONMENTAL SETTING

This general description of the Site's environmental setting is based on the findings of this field investigation, a review of topographic maps, geological and hydrogeological literature available for the site and vicinity, and information obtained from review of other environmental investigations previously conducted nearby the site. Geological data collected during boring advancement and well installation activities conducted in May 2010 are described in Section 2.3.1.

1.2.1 Site Topography

The general topography of UST areas 8, 11 and 12 appears to be relatively level with a gentle slope to the east toward CT Route 12. The topography of the UST area located along Lafayette Drive is more steeply sloping to the east toward Andrew Jackson Drive and Route 12. Surface water runoff in the site area is expected to coincide with topography and flow to the east toward CT State Route 12. Previous environmental documents reviewed for this project do not indicate any sensitive surface water receptors

near Site 6, other than the Thames River. However, given the proximity of the site to the river, the existence of sensitive receptors cannot be ruled out based on the lack of available information.

1.2.2 Surficial Geology

According to the Geologic Map of the Uncasville Quadrangle, Connecticut: Surficial Geology (Goldsmith, 1960), the native surficial materials within the area occupied by the Polaris Park Housing Sites consist of glacial materials, specifically moraine deposits consisting of till varying from light-grey sandy gravelly till to a compact, gray fissile till containing more silt and clay size particles.

1.2.3 Bedrock Geology

According to the Bedrock Geological Map of Connecticut, the Mamacoke Formation underlies the Polaris Park area. The Mamacoke Formation consists of inter-layered light to dark gray, medium-grained gneiss and Potter Hill Granite Gneiss, a light-pink to gray, tan weathering, fine- to medium-grained, well-foliated granitic gneiss (CGNHS, 1990). Bedrock was not encountered during the UST removal in 2009, or during the 2010 subsurface investigation.

1.2.4 Site Hydrology

Groundwater elevation measurements were collected by Tetra Tech during the 2010 groundwater monitoring event at Polaris Park. The elevation data suggest that groundwater flow at the site is generally eastward toward CT Route 12, consistent with the topographic contours of the site. Groundwater depths were observed to range from 3 to 15 feet below ground surface. These data are discussed further in Section 3.0 of this report.

1.2.4.1 Groundwater Classification

Groundwater beneath a small section of Polaris Park located along the southern part of Jackson Drive is classified by CTDEP as GAA. The remainder of the Polaris Park Site 6 area is classified as GA. The GAA classification applies to groundwater that may be used as a current or future public water supply suitable for drinking without treatment, or that is hydraulically connected to a surface water body that is used as a drinking water supply. Class GA designated uses apply to existing private and potential public or private supplies of water suitable for drinking without treatment; base flow for hydraulically connected surface water bodies.

The CTDEP has developed risk-based numerical criteria for the remediation of contaminated soil and groundwater. These criteria were promulgated in the CT DEP Remediation Standard Regulations (RSRs) (CTDEP, 1996, 2007(Draft). The RSRs provide numerical threshold concentrations for selected environmental contaminants (termed “polluting substances”) below which soil and groundwater are considered sufficiently remediated.

The analytical results for the soil and groundwater samples collected as part of this investigation were compared against the CT DEP RSRs (Residential Direct Exposure Criteria [DEC] and Pollutant Mobility Criteria [PMC] for soil samples; and the Groundwater Protection Criteria [GWPC], Surface Water Protection Criteria [SWPC], and Volatilization Criteria [VC] for groundwater samples). A brief description of each of these RSRs follows.

- DEC (Residential) – These criteria are intended to be protective of residential activity that takes place in an area where there is polluted soil as a result from a release. At the Polaris Park Housing Sites, the DEC applies to soil less than 15 ft below ground surface since there are currently no Environmental Land Use Restrictions on the sites.
- PMC – These criteria are intended to be protective of groundwater and drinking water within a specific groundwater classification area with respect to the type(s) and quantity of pollutants present within the classification area. PMCs are only applicable to soils above the seasonal low water table.
- GWPC (GAA/GA) – These criteria are intended to be protective of groundwater that is used as a drinking water source and for other domestic uses.
- SWPC – These criteria are intended to be protective of surface water that is subjected to discharges from groundwater plumes.
- VC (Residential) – These criteria are intended to protect the occupants of buildings or future buildings from the migration of volatile organic compounds (VOCs) from contaminated groundwater into indoor air of a building or other permanent structure. The specific criteria used for this site are the 2003 Volatilization Criteria for residential sites (Residential VC). There is no VC for ETPH; however, there is VC for BTEX and Methyl Tert Butyl Ether (MTBE), which are part of the VPH analysis for groundwater.

In Section 3.0 the data collected during soil and groundwater sampling in 2010 are compared to these RSR criteria.

1.2.4.2 Surface Water Classification

The surface water classification of Beaverdam Brook, the nearest surface water body located approximately 0.5-mile to the south and southeast (downgradient) of the Polaris Park, is AA. The AA classification indicates that the surface water present in this area may be used as an existing or proposed drinking water supply, a fish and wildlife habitat, for recreation, or as a supply for agricultural and industrial applications.

Surface water quality standards are intended to protect the existing use of a surface water body, wetland, or intermittent stream into which groundwater discharges. These criteria apply to the surface water found where the site abuts the Beaverdam Brook wetlands to the east and southeast. The CTDEP SWPC criteria applied to the data collected during surface water monitoring are the human health standards for consumption of organisms only (HH COO) and for the consumption of water and organisms (HH COWAO) provided in Appendix D of the Connecticut Water Quality Standards (CTDEP, 2009 Draft).

2.0 FIELD INVESTIGATION

This section describes the field investigation activities performed by Tetra Tech at the Polaris Park site during the period of May through June 2010. The investigation was conducted in a manner consistent with the requirements of the Site CT DEP Characterization Guidance Document.

2.1 MOBILIZATION

Tetra Tech and the drilling subcontractor, Geosearch, Inc. mobilized to the site on May 10, 2010. Geosearch constructed a decontamination pad prior to advancing any soil borings. Geosearch mobilized additional equipment and materials for air hammer drilling on May 13, 2010. Geosearch also mobilized a vacuum truck to assist with utility clearance at four boring locations along Andrew Jackson Drive on May 19, 2010. The vacuum truck was used because of the proximity of marked out utilities with respect to proposed boring locations. The procedure, also referred to as 'soft dig' removes the first several feet of ground via a hose or pipe under a high vacuum. This procedure is less invasive and can help to prevent digging or drilling through existing utilities. Tetra Tech and Geosearch de-mobilized from the site on May 24, 2010.

2.2 DRILLING ACTIVITIES

Tetra Tech advanced a total 20 soil borings at the Polaris Park Site 6 during May 2010 to evaluate soil conditions associated with each former UST area (five borings per UST area). These borings (SB-01 through SB-20) were advanced to depths of between 8 and 28 feet below ground surface (ft bgs) using a truck-mounted hollow-stem auger (HSA) drilling rig. Nine of the borings were completed using an air hammer because the hollow-stem augers encountered boulder refusal. Refusal was encountered between 4 feet and 14 feet bgs at these locations. At each former UST location, one boring was advanced in the center point of the former UST location and four borings were advanced around the perimeter. Five of the HSA soil borings were completed as 2-inch monitoring wells. Four of the well locations were chosen based on photoionization detector (PID) field screening data from the jar headspace technique, and the last well was chosen as an up-gradient location. The remaining borings not completed as monitoring wells were abandoned by backfilling the borehole with bentonite chips.

In each of the four UST areas one boring was advanced to a terminal depth of 30 feet below ground surface (ft bgs) in order to make a complete evaluation of the soil column for lithology, depth to the water table and general environmental observations (discoloration, odors, elevated PID screening levels, etc.) as well as to facilitate the drilling process at the remaining boring locations (by better identifying estimated target intervals in advance). Based upon the results of the initial boring in each area, targeted depths and sample intervals were pre-determined for the remaining boring locations within each UST excavation area. All soil samples were collected from 2-foot length stainless steel split-spoons. All samples were screened by jar headspace methods.

Soil boring and monitoring well locations are depicted on **Figures 2-1** thru **2-4**.

2.3 SUBSURFACE SOIL SAMPLING

2.3.1 Methods, Materials, Equipment

Samples were collected during boring advancement at selected intervals between the ground surface and the top of the water table (encountered between less than 1 and 15 feet bgs across the site) using a 24-inch long, 2.0-inch inside diameter (I.D.) split-barrel sampler. Two samples were collected from each boring; one at or near the water table and the other from the zone with the greatest evidence of apparent impact based upon PID readings, visual and/or olfactory indicators. For non-volatile samples (ETPH) the samples were composited from each 2-foot interval using a disposable soil spatula and then homogenize/mixed on pieces of aluminum foil or in a disposable aluminum pan (both disposed of between sample intervals) prior to adding to the laboratory glassware. Samples for volatiles analysis were collected as grab samples from discrete zones within the split-spoon sample.

Each soil sample was field screened for the presence of organic vapors immediately upon collection using the jar headspace technique in accordance with the Polaris Park Site 6 Implementation Plan (TtNUS, 2009). The field screening results indicated organic vapor concentrations ranging from between 0.0 parts per million by volume (ppm/v) to 1,380 ppm/v. Field screening readings above 5.0 ppm/v were detected in at least one depth interval in soil borings SB-01, SB-02, SB-03, SB-06, SB-09, SB-14, SB-19 and SB-20. The highest field screening readings were detected in soil samples collected from the 12 to 14 and 14 to 16 feet bgs intervals, near the water table interface, at location SB-09 (11 Andrew Jackson Drive) and from 8 to 10 feet bgs, at the water table interface, at location SB-14 (12 Andrew Jackson Drive). A summary of the field screening readings greater than 5.0 ppm/v is provided as **Table 2-1**.

Physical characteristics of soil samples collected from each depth interval were described using the Universal Soil Classification System (USCS) and recorded on soil boring log sheets. Inspection of soil

samples collected from soil borings advanced during this investigation indicate that materials underlying the three sites along Andrew Jackson Drive consist primarily of fine to coarse sands with varying amounts of weathered granite and gravel which is generally consistent with surficial geologic maps published for the area. All three sites along Andrew Jackson Drive were similar in nature. Materials underlying the site along Lafayette Drive were observed to consist primarily of fine to medium sands with silt and varying amounts of weathered granite and gravel. Higher blow counts were also associated with boring locations SB-16 through SB-20. The main difference between the sites on Andrew Jackson Drive (SB-01 thru SB-15) and the site on Lafayette Drive is the Lafayette site had a higher content of finer grained materials such as silt, silty sand, and fine sand. Soil boring log sheets (including all field screening readings) are provided in **Appendix A**. A summary of the lithology by boring location is provided as **Table 2-2**.

2.3.2 Sample Handling, Lab Methods, QA / QC

Forty-three soil samples (including two field duplicates) were collected during boring installation. The samples were analyzed for Extractable Total Petroleum Hydrocarbons (ETPH) by the Connecticut DEP Method, and Benzene, Toluene, Ethylbenzene, Xylenes and Methyl Tert Butyl Ether (BTEX and MTBE) by EPA Method 8260B. In addition, one Total Organic Carbon (TOC) (Walkley-Black) sample was collected from the center point boring of each former UST location at the approximate depth of the water table interface. All soil samples were chilled to 4°C; in addition, BTEX samples were preserved with methanol and submitted under chain-of-custody to Mitkem Laboratories in Warwick, Rhode Island, a Navy and state approved laboratory. Proper chain-of-custody procedures were adhered to throughout the investigation.

2.4 MONITORING WELL INSTALLATION AND CONSTRUCTION

Five of the soil borings were completed as groundwater monitoring wells; one well at each UST location, and one upgradient well. Monitoring wells were constructed of 2-inch inside diameter (I.D.) Schedule-40 polyvinyl chloride (PVC) screen and riser. Monitoring well screens ranged from 10 feet to 15 feet in length with a slot size of 0.010-inch. All well screens were fitted with a PVC end plug. Initial determination of the depth to water table was made by visual observation of soil moisture content in the split-spoon samples recovered from the soil borings. All monitoring wells, with the exception of MW-04, were installed so that approximately 2 to 3 feet of the well screen was placed above the water table. However, groundwater was very shallow at MW-04 (~ 3 feet below grade), which resulted in the entire screen length to be submersed in groundwater to allow for a sufficient length of riser pipe and grout seal.

A sand filter pack was placed into each borehole to a depth of approximately 1 or 2 feet above the top of the well screen. A 1 to 2-foot thick bentonite seal was placed above the filter pack. All monitoring wells

were completed with flush-mounted steel protective casings surrounded by 2-foot square concrete surface seals. Details pertaining to well construction are documented on the monitoring well construction log sheets attached in **Appendix B**. A summary table of monitoring well construction details is provided as **Table 2-3**.

2.5 MONITORING WELL DEVELOPMENT

After installation, each new monitoring well was developed by over-pumping methods using a submersible pump. Temperature, pH, and specific conductivity were monitored during well development using a Horiba U-22 water quality indicator. In addition, the turbidity of water extracted was measured periodically during well development activities using a LaMotte Turbidimeter. Monitoring wells MW-01, MW-02 and MW-03 were developed until the turbidity measurements were less than 50 NTU and the water was observed to be clear and colorless. Well MW-04 went dry after several pumping attempts, and MW-05 development stopped after two hours (>100 gallons) because the groundwater remained silty. This can be attributed to the silt content in the surrounding formation observed during soil boring installation and sampling in contrast to the more sandy gravelly materials encountered along the Andrew Jackson Drive investigation area. Temperature, pH, and conductivity were all stable during MW-05 development. Well development data sheets providing the volume of water extracted and water quality measurements are provided in **Appendix C**.

2.6 SURVEYING

After the installation of monitoring wells was complete, Tetra Tech contracted CME Associates, Inc. of Woodstock, CT Inc. to conduct a survey of the horizontal coordinates of all soil borings and vertical elevation of the five monitoring wells. The horizontal coordinate location (i.e., northing and easting) of each monitoring well was surveyed to the nearest 0.1 foot. Monitoring wells were surveyed for horizontal location in the center of the protective casing for the flush-mount lid. Horizontal locations were referenced to the Connecticut State Plane Coordinate System (SPCS), North American Datum of 1983 (SPCS NAD 83). Vertical elevations of each monitoring well were surveyed to the nearest 0.01 foot. Vertical locations (elevations) were referenced to North American Vertical Datum of 1988 (NAVD 88).

2.7 GROUNDWATER SAMPLING

Tetra Tech completed one groundwater monitoring event during June 2010. During the event, groundwater level measurements were collected and groundwater samples were collected for laboratory analysis. A summary of the groundwater elevation data is provided as **Table 2-4**.

2.7.1 Methods, Materials, and Equipment

Groundwater samples were collected from the five newly installed monitoring wells using the EPA “low flow” purging and sampling procedure (EPA SOP No. GW-001 [EPA, 1996]), as described in the project Sampling and Analysis Plan (Tetra Tech, 2010). The samples were collected using a peristaltic pump. Water quality data was collected using an In-Situ Troll 9500 Low-Flow System. A summary of the water quality data during well purging activities at each well are provided on the groundwater sample log sheets in **Appendix D**. Groundwater quality parameters measured immediately prior to sample collection are summarized on **Table 2-5**.

2.7.2 Sample Handling, Lab Methods, QA / QC

Seven groundwater samples (including one field duplicate groundwater sample) were collected during the sampling event. All groundwater samples were chilled to 4°C; in addition, volatile petroleum hydrocarbons (VPH) samples were preserved with hydrochloric acid and submitted under chain-of-custody to Mitkem Laboratories in Warwick, Rhode Island, using the Massachusetts DEP (MA DEP) Method for analysis of VPH and using the Connecticut DEP (CT DEP) Method for analysis of ETPH. A copy of the chain-of-custody forms is provided as **Appendix E**. A copy of the laboratory analytical data packages is provided as **Appendix F**.

2.8 INVESTIGATION DERIVED WASTE MANAGEMENT

Investigation derived waste (IDW) generated during subsurface investigation and groundwater monitoring activities completed between May 2010 and June 2010 included soil cuttings and decontamination fluids, well development water, and purge water generated during groundwater sampling. Solid and liquid IDW was collected and containerized into 55-gallon steel drums and staged at the Site. Samples were collected from the drums in order to characterize the wastes for off-site disposal. Once characterized, the waste liquids were disposed of in accordance with state and federal requirements.

New England Disposal Technologies, Inc., a licensed hazardous waste transportation and disposal subcontractor, was procured for the characterization and disposal of the IDW generated during the investigation. Laboratory analytical results of waste characterization samples indicated that all IDW generated during the investigation was suitable for disposal as non-hazardous waste. A total of 17 drums of solid IDW and 8 drums of liquid IDW were characterized and disposed for this project. The drums were removed from the site on August 5, 2010 for final disposition. Waste characterization profiles and non-hazardous waste manifests for IDW drums generated during the project are provided in **Appendix G**.

3.0 FINDINGS

This section discusses the findings of the field investigation, presents the analytical results for the soil and groundwater samples collected during the investigation and compares these results to the applicable CTDEP RSRs. The analytical data results were specifically compared against the CTDEP Soil DEC, the GWPC, the SWPC and VC in order to assess potential risks to human health associated with contamination detected in soil and groundwater samples.

3.1 QUALITY ASSURANCE/QUALITY CONTROL

An EPA Region I Tier 3 data validation was performed on the soil and groundwater analytical data obtained during the investigation. The data validation procedures include checking chain-of-custody records for sampling, shipping, analyses, and reporting information for completeness. The data obtained during this investigation also complies with the CTDEP 2007 Reasonable Confidence Protocols (RCP) and determined to be of sufficient quality to be used to evaluate compliance with the applicable regulatory criteria:

- Soil and groundwater samples were collected from all planned locations, resulting in 100 percent completeness for the proposed sampling.
- Quality assurance/quality control (QA/QC) samples collected during the sampling included three field duplicate samples (two soils, one groundwater), five trip blanks, and one equipment rinseate.

Field duplicate samples were collected to assess the precision of the overall sampling and analysis process. The following conditions indicate acceptable field precision for aqueous samples:

- (1) When both results are positive and their relative percent difference is less than 30 percent;
 - (2) When both results are positive and the results are less than twice the quantitation limit;
 - (3) When one result is positive the other is non-detect, and the positive result is less than twice the quantitation limit; and
 - (4) When both results are non-detects.
- An equipment rinseate sample was collected to assess the accuracy and contamination bias of the overall sampling and analysis process. The acceptable condition for field accuracy is no target compounds greater than or equal to quantitation limits.

- The five trip blanks collected during this investigation were analyzed for VOCs. There were no detections in the trip blank analytical results.

Data validation of the soil and groundwater analytical data generated as part of this investigation was performed by Tetra Tech. Data validation was completed on July 26, 2010 for soil samples [Sample Delivery Groups (SDG) SJ0988 and SJ1056]. Data validation was completed on August 4, 2010 for groundwater data (SDG SJ1250). Based upon the validation results, there are no usability issues concerning the soil or groundwater data. A copy of the laboratory analytical data packages is provided as **Appendix F**. A copy of the data validation packages is provided as **Appendix H**.

3.2 SOIL INVESTIGATION RESULTS

Forty-one samples were collected and analyzed for ETPH, BTEX, and MTBE. Three additional samples were collected and analyzed for TOC. These three samples were collected from the borings located in the center of the former UST locations (at the approximate groundwater interface).

The compounds detected in the soil samples collected during the investigation are summarized in **Table 3-1**. Compounds detected at concentrations greater than the applicable CTDEP RSR criteria are highlighted in black. Sampling locations in each UST area are depicted on **Figures 2-1** thru **2-4**.

Eight samples exceed the CTDEP RSR DEC (500 milligrams per kilogram [mg/kg]) and PMC (500 mg/kg) for ETPH at three soil boring locations. The ETPH exceedances are associated with former UST locations at 8, 11 and 12 Andrew Jackson Drive. Two of the samples also exceed the PMC for benzene (20 micrograms per kilogram [$\mu\text{g/kg}$]) and total xylenes (19,500 $\mu\text{g/kg}$). Both of these samples also came from the former UST location at 12 Jackson Drive. In general the most impacted soils were observed in boring locations within the former tank footprints while soil samples analyzed from outside of the tank footprints were either non-detect or detected at concentrations less than the applicable CTDEP RSR. In addition, the majority of the field screening (jar headspace) readings for shallow soils (less than 10 ft bgs) located outside of the tank footprints were general very low (typically less than 1.0 ppm). A discussion of the findings for each of the UST areas is summarized in the following section.

A copy of the laboratory analytical data packages is provided as **Appendix F**.

3.2.1 8 Jackson Drive Results (SB-01 thru SB-05; MW-01)

Two of the three ETPH exceedances at this location were from SB-01, the boring where MW-01 was constructed. This boring was located within the former UST excavation. The two samples were collected at depths of 14' to 16' bgs, and 16' to 18' bgs. Depth to water was measured at 15.1' bgs during boring installation and 14.9' bgs during groundwater sampling. The other exceedance came from SB-02, upgradient of MW-01 which was collected at a depth of 17' to 19' bgs. The ETPH concentration detected in the SB-02 sample was lower than the 14' to 16' sample at SB-01, but higher than the 16' to 18' sample. The ETPH concentration detected in the 23' to 25' sample collected at SB-02 was below the DEC and PMC. A figure with highlighted exceedances is provided as **Figure 3-1**.

Samples collected from SB-03, SB-04, and SB-05 ranged from depths of 12' to 24' bgs. All analytical results for these samples were non-detect. SB-04 is upgradient of MW-01; while SB-03 and SB-05 are downgradient.

3.2.2 11 Jackson Drive Results (SB-06 thru SB-10; MW-02)

Two of the three ETPH exceedances at this location were from SB-09, the boring where MW-02 was installed. The ETPH concentrations detected in these samples were the highest from 11 Jackson Drive. This boring was located within the former UST excavation. The two samples were collected at depths of 12' to 14' bgs and 14' to 16' bgs. Depth to water was measured at 11.5' bgs during boring installation and 12.3' bgs during groundwater sampling. The other ETPH exceedance came from SB-06, upgradient of MW-02. This sample was collected from 15' to 17' bgs. ETPH was not detected in the 22' to 24' bgs sample. The concentrations of ETPH detected at this location were observed to decrease with depth. A figure with highlighted exceedances is provided as **Figure 3-2**.

Samples collected from SB-07, SB-08, and SB-10 ranged from depths of 8' to 16' bgs. All analytical results for all analyses were non-detect. SB-07 is upgradient of MW-02; while SB-08 and SB-10 are downgradient.

3.2.3 12 Jackson Drive Results (SB-11 thru SB-15; MW-03)

ETPH, benzene, and total xylenes exceedances were detected in the two soil samples collected from this from SB-14, the boring where MW-03 was installed. This boring was located within the former UST excavation. The two samples were collected at depths of 8' to 10' bgs and 10' to 12' bgs. Depth to water was measured at 10' bgs during boring installation and 10.7' bgs during groundwater sampling. The

levels of ETPH and VOCs were essentially the same in each of the samples. A figure with highlighted exceedances is provided as **Figure 3-3**.

Samples collected from SB-11, SB-12, SB-13, and SB-15 ranged from depths of 8' to 16' bgs. All analytical results for all analyses were non-detect. SB-12 is upgradient of MW-03; while SB-11, SB-13, and SB-15 are downgradient.

3.2.4 46-47 Lafayette Drive Results (SB-16 thru SB-20; MW-04 and MW-05)

There were no exceedances of the applicable RSRs for any analyte for the samples collected from SB-16, SB-17, SB-18, SB-19, or SB-20. The only ETPH detections were from SB-20; and the only VOC detections were from SB-19, which is where MW-04 was installed. SB-20 was located within the former UST excavation. The detected concentrations are less than the applicable CT DEP RSRs. All other analytical results for all other samples were non-detect (less than the laboratory RQL or the applicable CT DEP RSR).

3.3 GROUNDWATER INVESTIGATION RESULTS

Groundwater samples were collected from the five monitoring wells and analyzed for VPH and ETPH. The compounds detected in the groundwater samples collected during the investigation are summarized in **Table 3-2**. Compounds detected at concentrations greater than the applicable CTDEP RSR criteria are highlighted in black. Sampling locations are depicted on **Figures 2-1** thru **2-4**.

A contour map was constructed to depict the approximate groundwater flow directions at the Polaris Park Site 6 area. Based upon groundwater elevation measured on May 21, 2010 the apparent groundwater flow is from the west to east. Although the number of wells and their geographic spacing limits the overall interpretation of flow it is clear that when factoring in the surface topographic contours of the site (USGS Uncasville, CT Quadrangle map) the shallow groundwater flow would be to the east toward CT Route 12. (away from the Thames River). The groundwater contour map is provided as **Figure 1-2**.

The most frequently detected analyte in the groundwater samples collected from the Polaris Park Site was ETPH (three of five well locations). VOCs (part of VPH analysis) were detected in two of the five wells sampled at levels below RSR criteria, with one exception (benzene in MW03). Additionally C9-C12 chain aliphatics were also detected at elevated levels in these wells. However there is no CT DEP RSR for VPH.

Groundwater sampling results were compared against the CTDEP RSR GWPC, SWPC, and Residential VC. There were no exceedances of the Residential VC. Compounds detected in groundwater samples at concentrations exceeding the CTDEP GWPC included ETPH and benzene. Naphthalene was detected at concentrations exceeding the CTDEP Residential VC. Specifically, the results indicate the following:

- ETPH was detected at concentrations exceeding the GWPC (500 µg/L) in the groundwater samples collected from wells MW01, MW03, and MW04.
- Benzene was detected at a concentration exceeding its GWPC (1 µg/L) in the groundwater sample collected from MW-03. The method detection limit (MDL) of benzene for MW-02, MW-04, and MW-05 was 2.7 µg/L, and the MDL for MW-01 was 5.4 µg/L; all of which are greater than the GWPC. However, the elevated detection limits are addressed in the groundwater validation report and do not appear to pose any usability issues.
- Naphthalene was detected at concentrations exceeding its SWPC (24 µg/L) in the groundwater samples collected from MW-01 and MW-03.

The location of monitoring wells in which ETPH, benzene, and naphthalene concentrations were detected at levels exceeding CTDEP regulatory criteria are highlighted on **Figures 3-4** through **3-6**. No other compounds detected in groundwater samples exceeded the CTDEP GWPC, SWPC, or VC.

A copy of the laboratory analytical data packages is provided as **Appendix F**.

3.4 PRELIMINARY RISK CHARACTERIZATION

Based upon the additional data acquired during the soil groundwater investigation the existing Conceptual Site Model (CSM) was updated to reflect this newly acquired information and is discussed below. This updated CSM was used to develop the preliminary risk characterization for the site. A depiction of the CSM is provided as **Figure 3-7**.

3.4.1 Sources and Potential Contaminants

The objective of this soil and groundwater investigation was to assess the extent of environmental impact associated with the historic release of No. 2 fuel oil-related constituents to the subsurface. The nature of the contamination was previously documented as No. 2 fuel oil used to heat the former residential structures located in the Site 6 area that were demolished in 2009. The horizontal and vertical extent of soil contamination had not been fully delineated. The findings of the field and analytical data support the premise that the residual soil and groundwater contamination at the site appears to be limited to petroleum hydrocarbon constituents associated with the No 2 fuel oil and that these constituents appear

to be limited in extent. No product staining was observed in any of the soil borings or soil samples collected, however, strong petroleum-like odors and elevated PID readings were observed. A slight sheen, indicative of residual contamination was also observed at each of the UST locations, where monitoring wells were installed.

The USTs excavated as part of the previous work were documented to be 1,000- and 2,000-gallon capacity single wall steel USTs with associated piping. The 2009 Demolition Completion Report prepared by Charter Environmental documented the removal of these tanks and the associated piping. However, no specific information was available in the report relating to the size of the tank excavations, the degree of over-excavation (for any petroleum-impacted soils encountered), nor is the presence of groundwater within the excavations discussed. The results of this soil and groundwater investigation indicate that the vast majority of impacted soils were excavated from the site but that there remain several areas limited in extent in which some residual petroleum impacted soils remains (8, 11 and 12 Andrew Jackson Drive respectively).

Impacted groundwater at the site monitoring wells appears to be associated with partitioning of residual soil contamination of the vadose (unsaturated zone) most likely associated with fluctuating groundwater levels.

3.4.2 Contamination Migration Pathways

Soil associated with the site consists primarily of widely-graded sand and gravel historically used to develop the base housing area along with material used to backfill the UST post-excavation areas in 2009. A review of soil boring logs generated during this investigation indicates that the “native” subsurface geologic materials at the site consist of glacial till-like materials composed of poorly graded sands and silts with angular to sub-angular gravels overlying weathered granite grading to competent bedrock. A review of the boring logs indicates that the materials encountered during the soil boring installation appear to exhibit a relatively low permeability. This is based partly on the high blow counts encountered during the split-spoon sampling at the majority of the boring locations along with a review of the lithology which suggest that the materials are glacial till like in appearance and composition consistent with published reports on the local geology. Further, the concentrations of site constituents detected in soil appear to decrease with depth.

Contaminated soil within the saturated zone is most likely partitioning off of soil and traveling by advective forces with the groundwater gradient. Any light non-aqueous phase liquids (LNAPL) such as floating oil are expected to rise to the potentiometric surface and fluctuate with groundwater levels over time creating a smear zone that could serve as ongoing source for dissolved phase contaminant migration. Although LNAPL was not observed during the groundwater sampling, a sheen was observed in the water purged

from several of the wells sampled during the investigation. However, any contamination in the soil above the groundwater interface would likely be limited in mobility and thus unlikely to migrate. Additionally, based on the chemical concentrations, it is unlikely that LNAPL is present.

Other Groundwater Pathways

Although there are several exceedances of the CTDEP GWPC, the groundwater analytical results for BTEX and MTBE (part of the VPH analysis) are all below the CTDEP Volatilization Criteria and thus this pathway is eliminated from future investigation. There is no VC Criteria for ETP.

Additionally, although naphthalene was detected at a concentration greater than CTDEP SWPC at MW-01 and MW-03, the distance of these wells to the nearest likely surface water discharge point associated with Beaverdam Brook is far enough away (greater than a 0.25-mile) to eliminate this pathway from further investigation.

Further, MTBE was not detected in any of the soil or groundwater samples collected, and therefore are not considered to be a contaminant present at the site.

3.4.3 Receptors, Exposure Pathways, and Land Use

The site is currently at grade and unused since the buildings were demolished in 2009. The anticipated exposure for future land use scenarios includes residential receptor scenarios. The site has historically been used for residential housing and the Navy has no plans to change the use of the site to a non-residential scenario. Humans engaged in activities associated with future exposure scenarios are unlikely to contact groundwater through ingestion or dermal adsorption given the depth to groundwater and the zone of impacted soils. Although there is a potential risk for construction worker exposure to deeper soils given the concentrations detected in soil and groundwater it is likely to be low and could be addressed through proper soil handling management.

Based upon the apparent limited extent of impacted subsurface materials, ecological receptors at the site would appear to be limited to deeper subsurface receptors (e.g., such as burrowing organisms). Terrestrial users would be unlikely to be a receptor since they would not be exposed to contaminated soil. Furthermore, given the site development history, the lack of any apparent sensitive habitats (wetlands, etc.,) and the distance to either Beaverdam Brook or the Thames River any risks to ecological receptors risks is likely to be very low.

Residents in the adjacent Polaris Park housing units do not get their water from a supply source located on the Polaris Park Site thus the direct ingestion of contaminated groundwater can be eliminated as a pathway. Furthermore, according to the CT DEP Water Classifications Map (August 2010), the site is

located greater than one mile from the nearest “contributing to public water supply” (wellhead protection zone) which is located approximately 1.25-mile to the north near Flat Brook Pond.

4.0 CONCLUSIONS AND RECOMMENDATIONS

This section summarizes the findings of the soil and groundwater investigation, and presents conclusions regarding the need for additional work at these sites to bring them into compliance with the Connecticut RSRs.

4.1 CONCLUSIONS

Nature and Extent of Contamination

Soil

The results of the investigation indicate that the vast majority of petroleum-impacted soils appear to have been excavated from the site back in 2009. However, there remain several areas, limited in horizontal and vertical extent, in which residual petroleum impacted soil remains. This includes very limited areas (small residual hot spots) associated with former USTs located at 8, 11 and 12 Andrew Jackson Drive respectively. No exceedances of the CTDEP RSRs for soil were detected in soil samples from the UST Area located at 46-47 Lafayette Drive although a low-level ETPH exceedance of the GWPC was detected at monitoring well MW-4 installed in this area (see following section). This lack of exceedances for soils from this area is most likely associated with the extensive over-excavation activities performed at this area back in 2009.

The soil analytical data collected during the soil boring and well installation activities at the subject properties indicate that the sources of petroleum contamination have been sufficiently delineated horizontally. This is based on the findings that analytical results for soil borings located both downgradient and outside of the UST excavation borings which exhibit exceedances of the CTDEP RSRs, did not exceed any of the RSRs.

As discussed in Section 3.4, the materials encountered during the soil boring installation appear to be glacial till and exhibit a relatively low permeability. Further, the concentrations of site constituents detected in soil appear to decrease with depth. This suggests that the vertical extent of impacted soils is limited and has been sufficiently delineated. The highest field screening readings are associated with soil located near the groundwater interface (i.e., the “smear zone”).

Groundwater

Although free product was not observed during soil boring installation or soil sampling, a petroleum-like sheen was initially observed in the groundwater from monitoring wells MW01, MW03, and MW04 during

initial well development and purging. At the conclusion of development, groundwater was clear and colorless; and there was no sheen present in the purge water at MW03. The concentrations of ETPH and benzene detected in groundwater samples from these 3 wells exceed the RSR GWPC; and concentrations of naphthalene measured in groundwater samples exceed the RSR SWPC. However, based on the relatively low concentrations of contaminants present and the observed improvement of water quality during development and sampling, it is unlikely that LNAPL is present.

ETPH, benzene, and naphthalene concentrations measured in groundwater samples collected from these sites are believed to represent dissolved-phase contamination remaining from residual petroleum impacted soil that was not previously excavated back in 2009. However, given the limited area of impact and likely degradation of petroleum constituents, additional removal activities are not warranted at this time. However, groundwater at these sites is not in compliance with Connecticut regulations. Additional groundwater monitoring and an evaluation of groundwater geochemistry would be needed to ascertain the potential amenability to biodegradation/natural attenuation of contaminants at the site.

Although groundwater at the site is not in compliance with the CTDEP GWPC, the adjacent base housing units are all on a public water supply and not on private wells. Therefore this risk pathway is not complete and can be eliminated. However, any future redevelopment of the site for base housing would require connecting into the current public waterline. As discussed previously the site is located greater than one mile from the nearest “contributing to public water supply” (wellhead protection zone) which is located approximately 1.25-mile to the north near Flat Brook Pond.

The groundwater elevation contour map constructed for the site indicates that the apparent groundwater flow is from the west to east toward CT Route 12 (and Beaverdam Creek) and not towards the Thames River. This is consistent with the topographic contours of the site and the lithology of the shallow sub-surface materials evaluated as part of this investigation.

4.2 RECOMMENDATIONS

Based on the evaluation of the sampling analytical and field data collected during this investigation, additional investigation is recommended at the site to confirm that groundwater contamination is not migrating.

Groundwater Monitoring

A groundwater monitoring program should be implemented at the site in order to verify that ETPH and benzene concentrations in on-site monitoring wells should eventually attenuate to comply with the GWPC and that the naphthalene concentrations in on-site monitoring wells should also continue to attenuate and

comply with the SWPC. The goals of the monitoring program will be to monitor the concentrations of ETPH in key locations at each site to verify that natural degradation of petroleum constituents continues to occur. It is recommended that quarterly monitoring be conducted for a period of one year, followed by two years of annual sampling after which time the ETPH, benzene, and naphthalene concentration trends should be re-evaluated. Monitoring wells recommended for additional monitoring include MW01, MW03, and MW04. These wells are located in the areas of highest ETPH and benzene concentrations; therefore compliance with the GWPC at these wells would suggest compliance at other on-site wells.

Once the concentrations of ETPH and benzene have decreased to a level below the GWPC, and naphthalene below SWPC in these monitoring wells, quarterly sampling should be performed for one year from an expanded set of monitoring wells for compliance and post-remediation monitoring to demonstrate site wide compliance with the RSRs.

However, a suitable monitoring well network should first be installed in order to implement an effective and technically defensible groundwater monitoring program. The existing well network which was installed as part of the initial soil and groundwater investigation was biased toward specific UST areas; consequently no groundwater contour map could be prepared due the geographic spacing of the wells. Therefore, it is recommended that an additional eight monitoring wells; with contingency for up to ten total, be installed in order to construct a monitoring network that will allow for the evaluation of groundwater flow patterns at the site and to confirm the extent of any groundwater impact. The eight wells would include two additional wells (one upgradient and one down gradient) to be installed in each of the four former UST areas (for a total of eight wells). One of the two contingent wells would be installed to the west of Jackson Drive, within the first elevated terrace level between Lafayette and Jackson Drives. The second well would be installed near the north end of Jackson Drive to provide greater coverage of groundwater flow along Jackson Drive. Both of these wells would serve as boundary wells for the site.

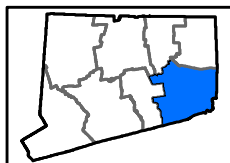
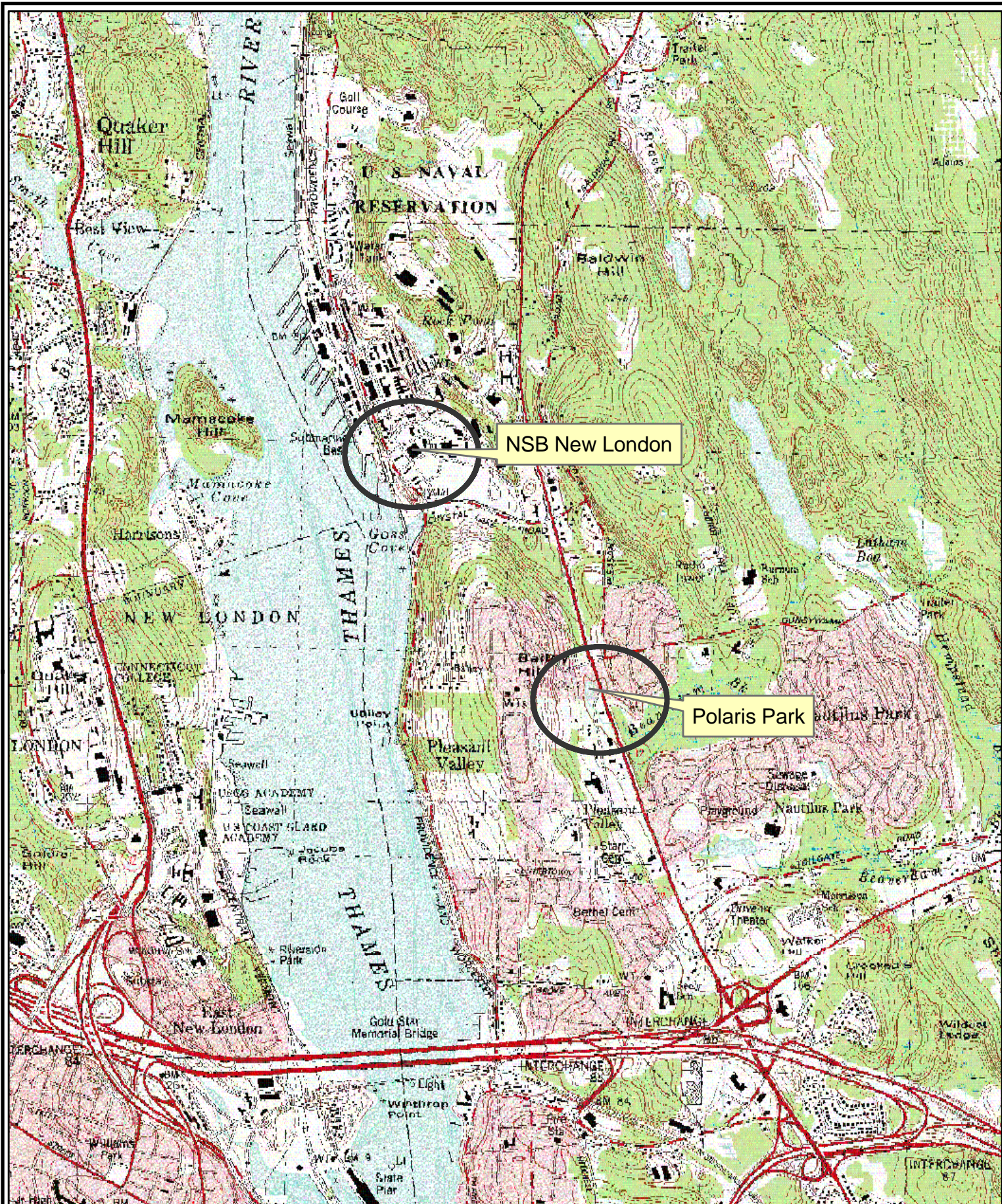
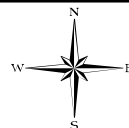


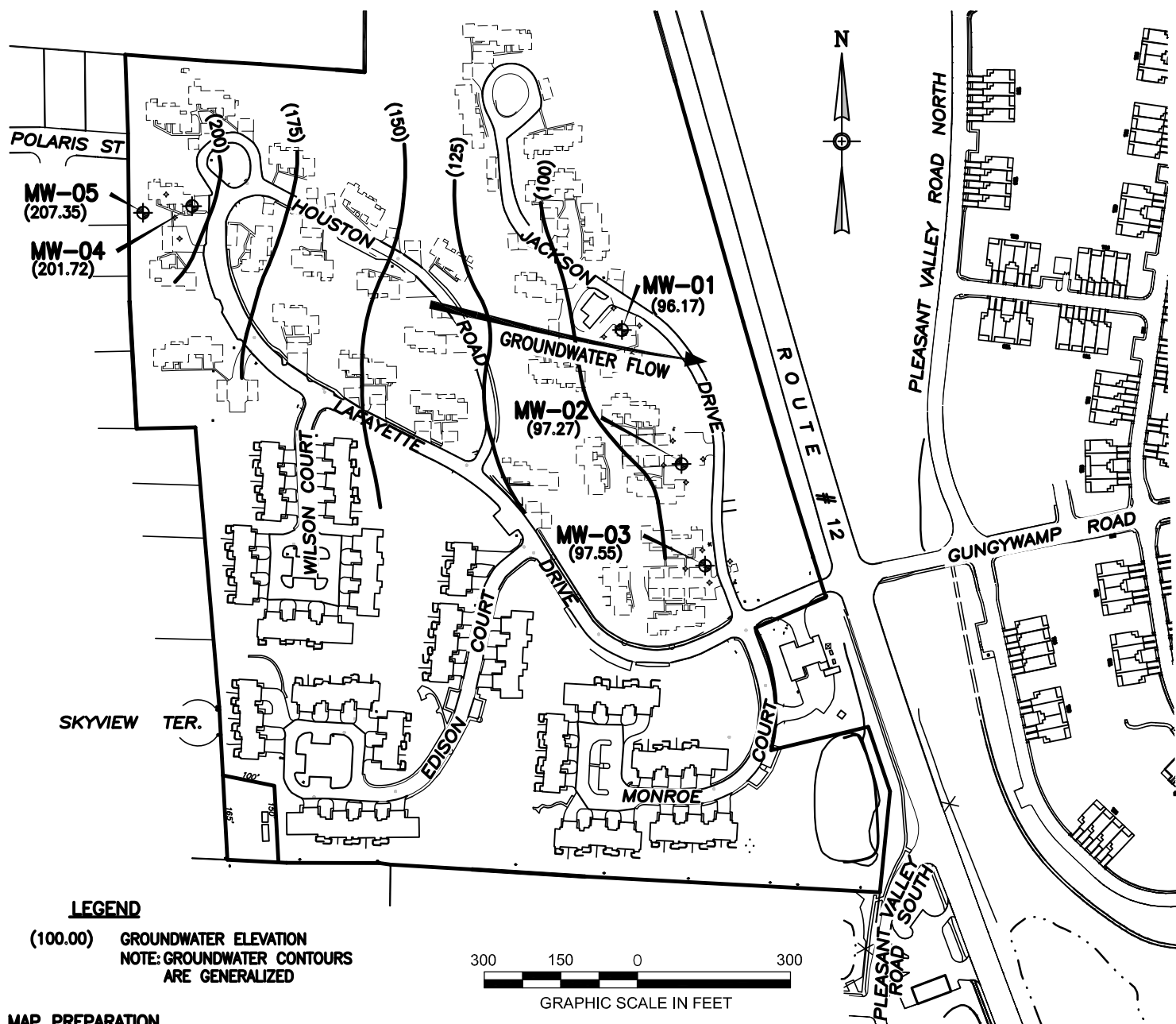
Figure 1-1
 Site Location Map
 Polaris Park - Site 6
 NSB New London
 Groton, New London County, Connecticut

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 Feet



TETRA TECH
 240 Continental Drive, Suite 200
 Newark, Delaware 19713
 Phone: 302.738.7551 Fax: 302.454.5980

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NAVAL SUBMARINE BASE GROTON, CT

SITE INVESTIGATION FOR USTs

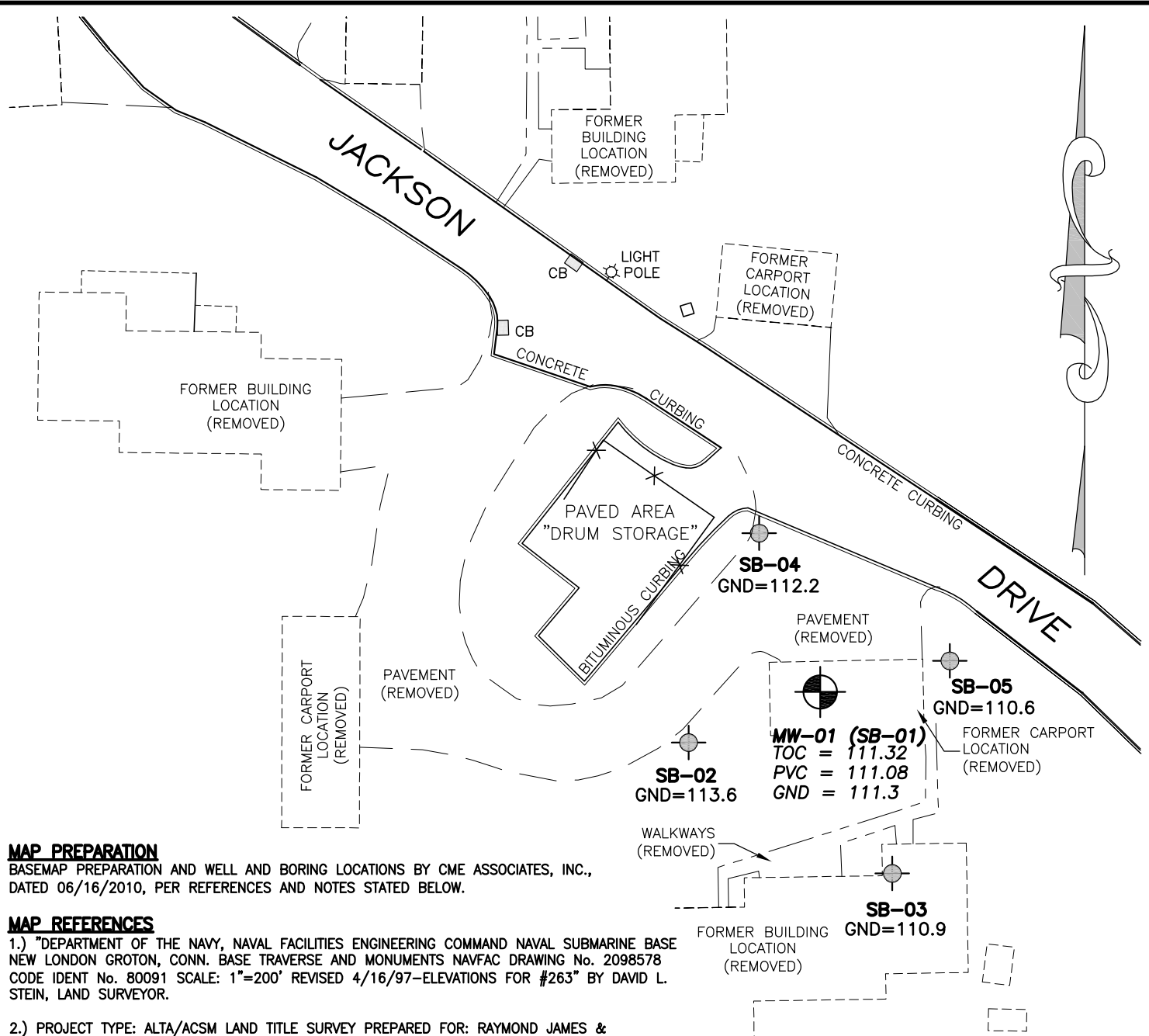
SITE 6 POLARIS PARK

MONITORING WELL LOCATION PLAN

AND GROUNDWATER CONTOUR MAP

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MAP PREPARATION

BASEMAP PREPARATION AND WELL AND BORING LOCATIONS BY CME ASSOCIATES, INC.,
DATED 06/16/2010, PER REFERENCES AND NOTES STATED BELOW.

MAP REFERENCES

- 1.) "DEPARTMENT OF THE NAVY, NAVAL FACILITIES ENGINEERING COMMAND NAVAL SUBMARINE BASE NEW LONDON GROTON, CONN. BASE TRAVERSE AND MONUMENTS NAVFAC DRAWING No. 2098578 CODE IDENT No. 80091 SCALE: 1"=200' REVISED 4/16/97-ELEVATIONS FOR #263" BY DAVID L. STEIN, LAND SURVEYOR.
- 2.) PROJECT TYPE: ALTA/ACSM LAND TITLE SURVEY PREPARED FOR: RAYMOND JAMES & ASSOCIATES, INC. GMH MILITARY HOUSING, LLC PROJECT ADDRESS: POLARIS PARK GROTON, CT. 06340, NEW LONDON COUNTY PROJECT NAME: NEW LONDON, POLARIS PARK SCALE: 1"=100' DATE: JUNE 30, 2004 REVISED SEPT. 30, 2004. BY FLYNN LAND SURVEYING ASSOCIATES, PETER D. FLYNN CT.L.L.S #8792 & U.S. SURVEYOR

NOTES

1.) THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS PREPARED AND ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996. THE TYPE OF SURVEY PERFORMED IS A DATA ACCUMULATION PLAN. WELL AND BORING LOCATIONS CONFORM TO THE STANDARDS OF ACCURACY FOR A HORIZONTAL CLASS A-2 AND VERTICAL CLASS V-2. THIS PLAN WAS PREPARED TO DEPICT THE HORIZONTAL AND VERTICAL LOCATIONS OF MONITORING WELLS AND SOIL BORINGS. THIS MAP WAS PREPARED FROM OTHER MAPS, LIMITED FIELD MEASUREMENTS AND OTHER SOURCES. IT IS NOT TO BE CONSTRUED AS A PROPERTY/BOUNDARY OR LIMITED PROPERTY/BOUNDARY SURVEY AND IS SUBJECT TO SUCH FACTS AS SAID SURVEYS MAY DISCLOSE.

2.) COORDINATES DEPICTED HEREON ARE REFERENCED TO NAD83 AND ELEVATIONS ARE BASED ON NAVD88 DERIVED FROM MAP REFERENCE No.1

LEGEND

TOC	TOP OF CASING
PVC	TOP OF WELL RISER PIPE
GND	GROUND
MW-01	MONITORING WELL
SB-20	SOIL BORING



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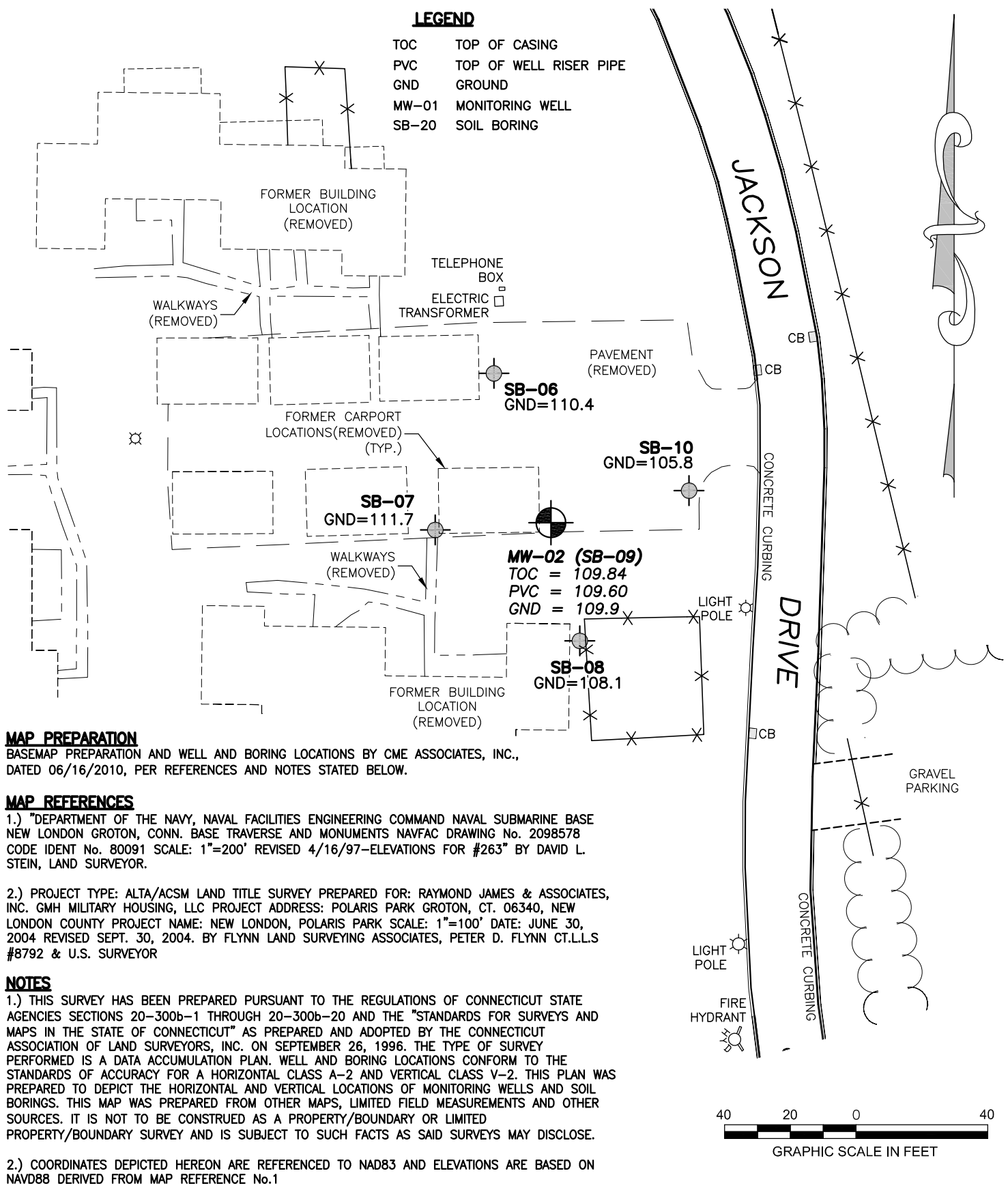


NAVAL SUBMARINE BASE GROTON, CT
SITE INVESTIGATION FOR USTs
SITE 6 POLARIS PARK
#8 USS ANDREW JACKSON DRIVE

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Figure 2-1	0

LEGEND

TOC TOP OF CASING
PVC TOP OF WELL RISER PIPE
GND GROUND
MW-01 MONITORING WELL
SB-20 SOIL BORING



MAP PREPARATION

BASEMAP PREPARATION AND WELL AND BORING LOCATIONS BY CME ASSOCIATES, INC., DATED 06/16/2010, PER REFERENCES AND NOTES STATED BELOW.

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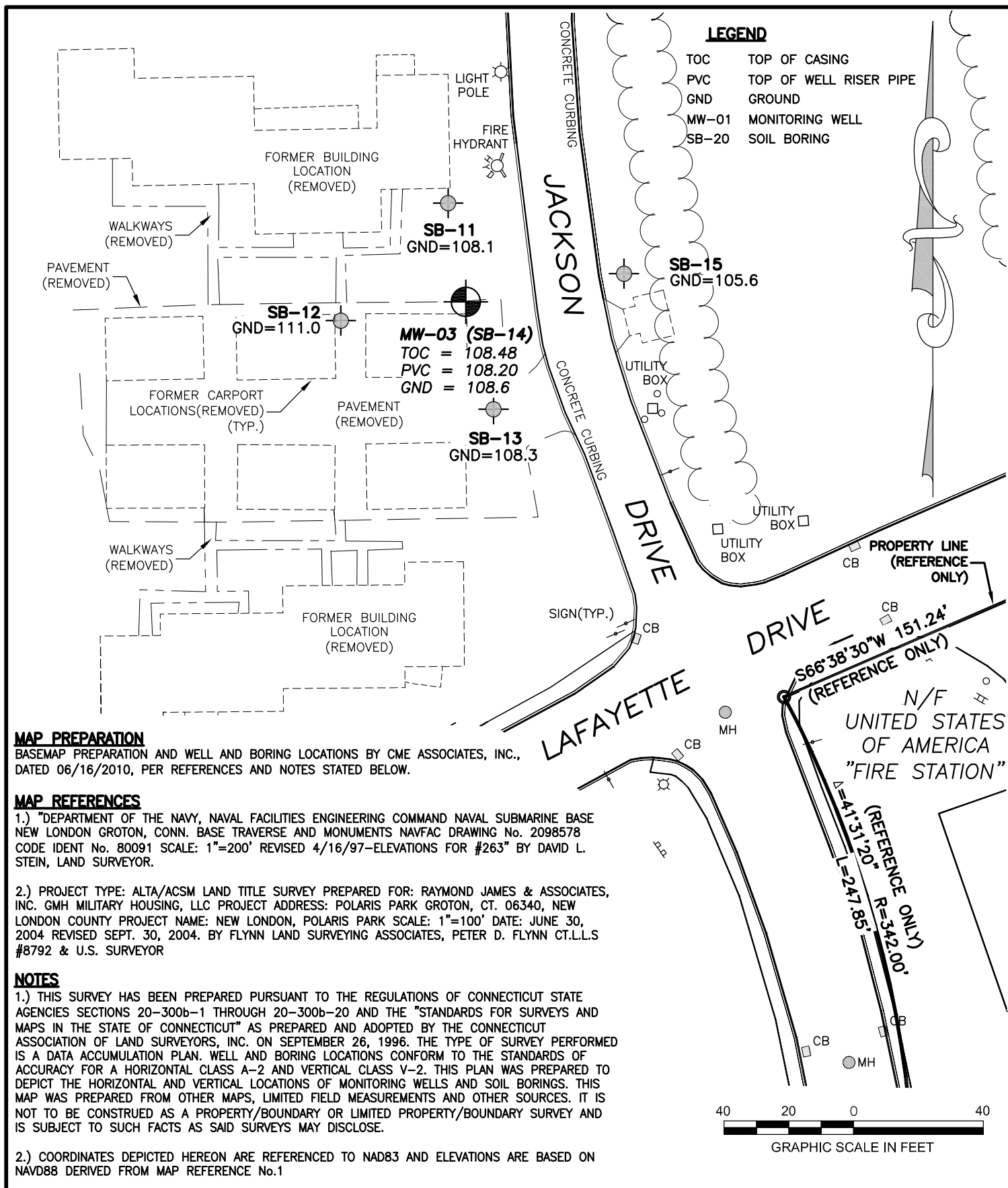
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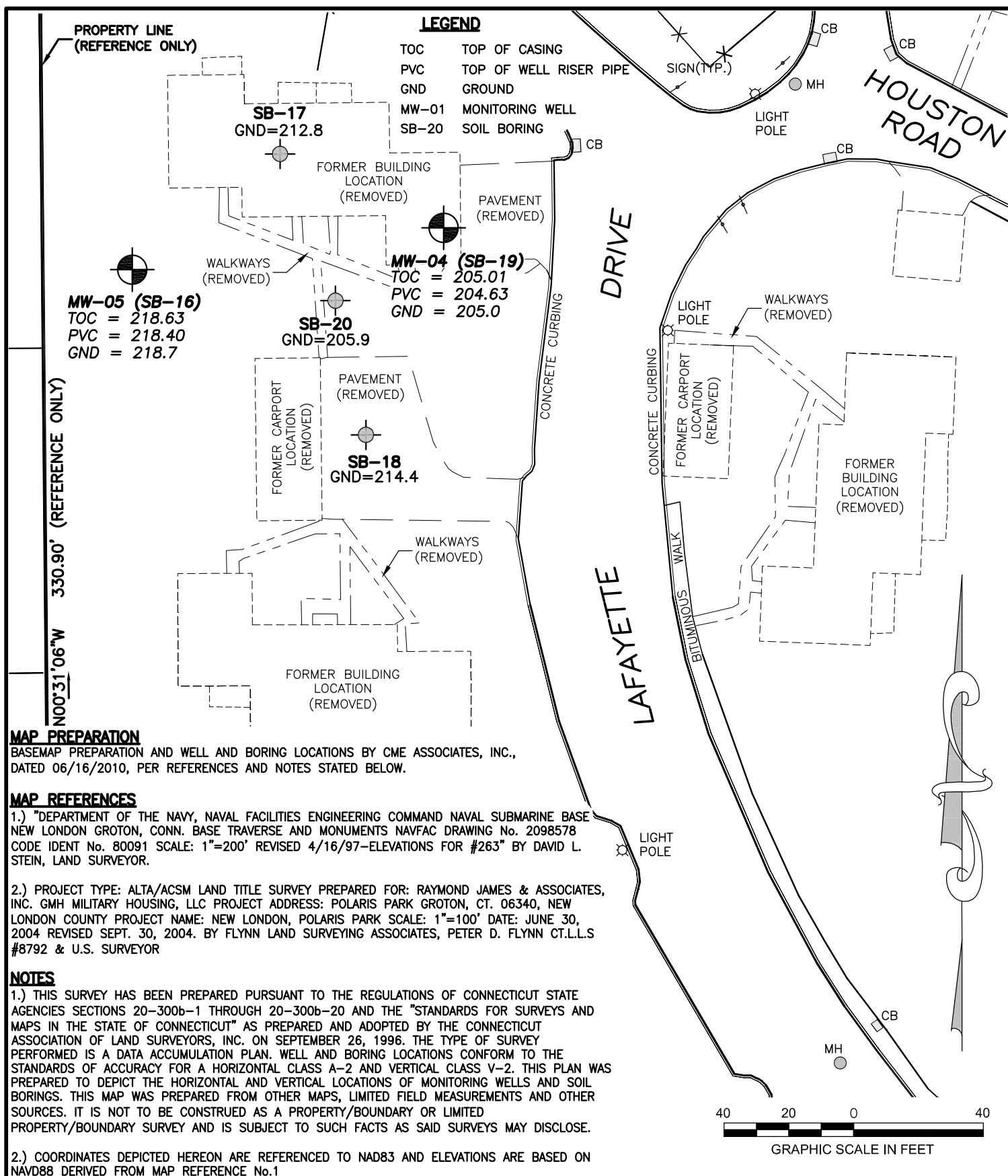
NAVAL SUBMARINE BASE GROTON, CT
SITE INVESTIGATION FOR USTs
SITE 6 POLARIS PARK
#11 USS ANDREW JACKSON DRIVE

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Figure 2-2	0

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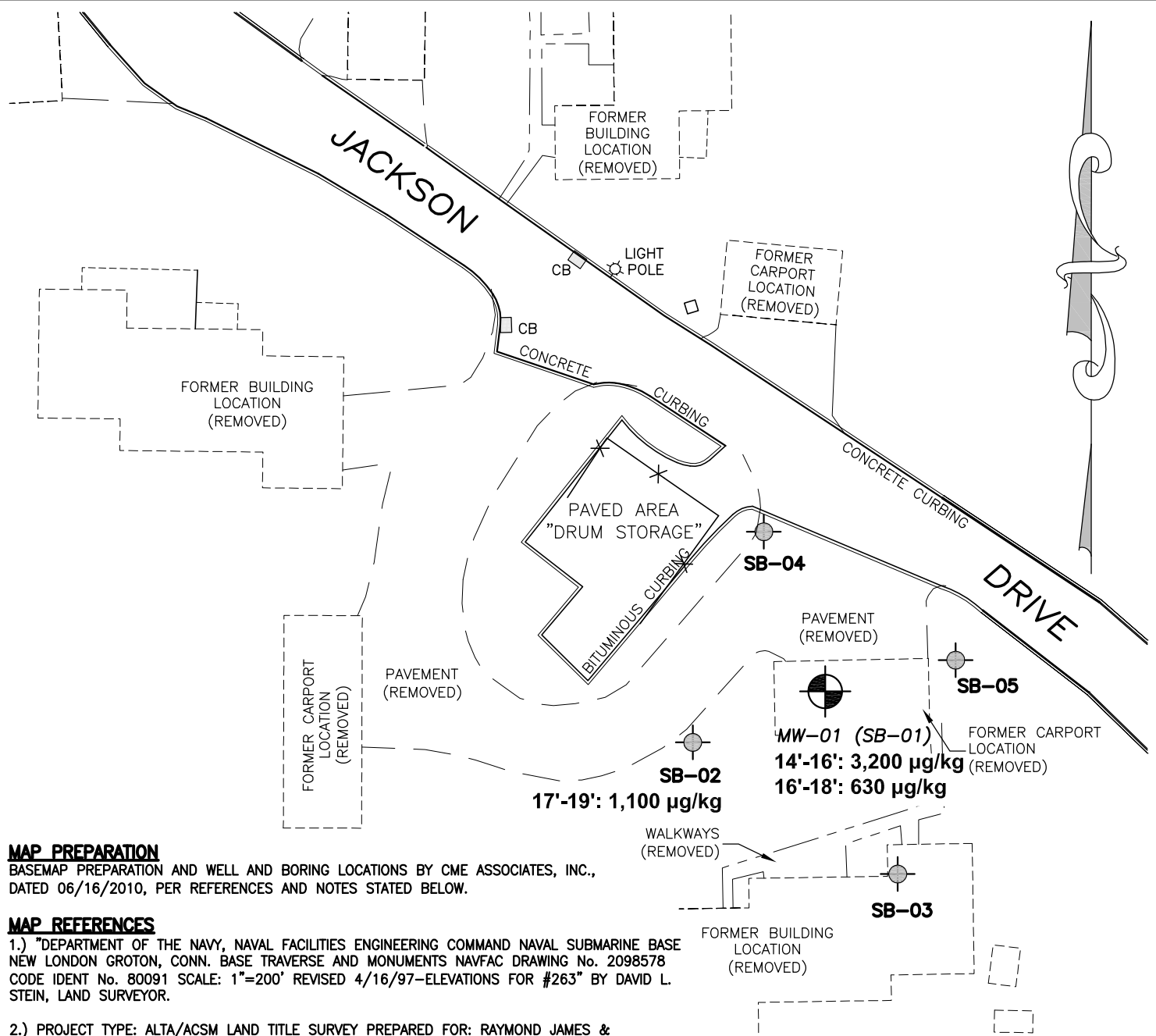


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NAVAL SUBMARINE BASE GROTON, CT
SITE INVESTIGATION FOR USTs
SITE 6 POLARIS PARK
#46-47 USS LAFAYETTE DRIVE



MAP PREPARATION

BASEMAP PREPARATION AND WELL AND BORING LOCATIONS BY CME ASSOCIATES, INC., DATED 06/16/2010, PER REFERENCES AND NOTES STATED BELOW.

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- 2.) PROJECT TYPE: ALTA/ACSM LAND TITLE SURVEY PREPARED FOR: RAYMOND JAMES & ASSOCIATES, INC. GMH MILITARY HOUSING, LLC PROJECT ADDRESS: POLARIS PARK GROTON, CT. 06340, NEW LONDON COUNTY PROJECT NAME: NEW LONDON, POLARIS PARK SCALE: 1"=100' DATE: JUNE 30, 2004 REVISED SEPT. 30, 2004. BY FLYNN LAND SURVEYING ASSOCIATES, PETER D. FLYNN CT.L.L.S #8792 & U.S. SURVEYOR

NOTES

1.) THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS PREPARED AND ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996. THE TYPE OF SURVEY PERFORMED IS A DATA ACCUMULATION PLAN. WELL AND BORING LOCATIONS CONFORM TO THE STANDARDS OF ACCURACY FOR A HORIZONTAL CLASS A-2 AND VERTICAL CLASS V-2. THIS PLAN WAS PREPARED TO DEPICT THE HORIZONTAL AND VERTICAL LOCATIONS OF MONITORING WELLS AND SOIL BORINGS. THIS MAP WAS PREPARED FROM OTHER MAPS, LIMITED FIELD MEASUREMENTS AND OTHER SOURCES. IT IS NOT TO BE CONSTRUED AS A PROPERTY/BOUNDARY OR LIMITED PROPERTY/BOUNDARY SURVEY AND IS SUBJECT TO SUCH FACTS AS SAID SURVEYS MAY DISCLOSE.

2.) COORDINATES DEPICTED HEREON ARE REFERENCED TO NAD83 AND ELEVATIONS ARE BASED ON NAVD88 DERIVED FROM MAP REFERENCE No.1

LEGEND

MW-01 MONITORING WELL
SB-20 SOIL BORING

ETPH EXCEEDANCE IN SOIL

RESIDENTIAL DEC: 500 µg/kg
PMC: 500 µg/kg

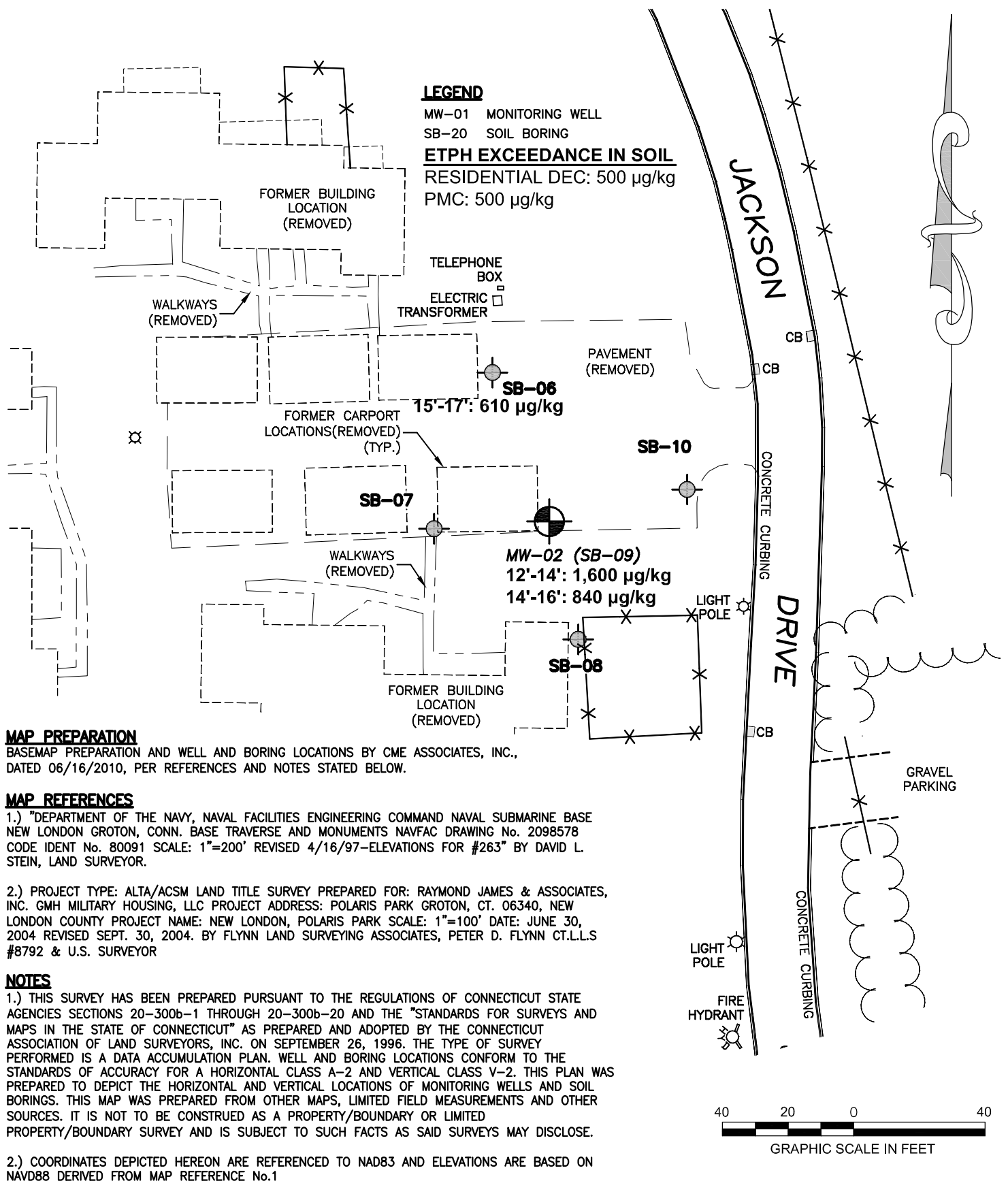


DRAWN BY	DATE
CME	06/16/2010
CHECKED BY	DATE
CSG/DK	08/12/2010
REVISED BY	DATE
-	-
SCALE	
1"=40'	



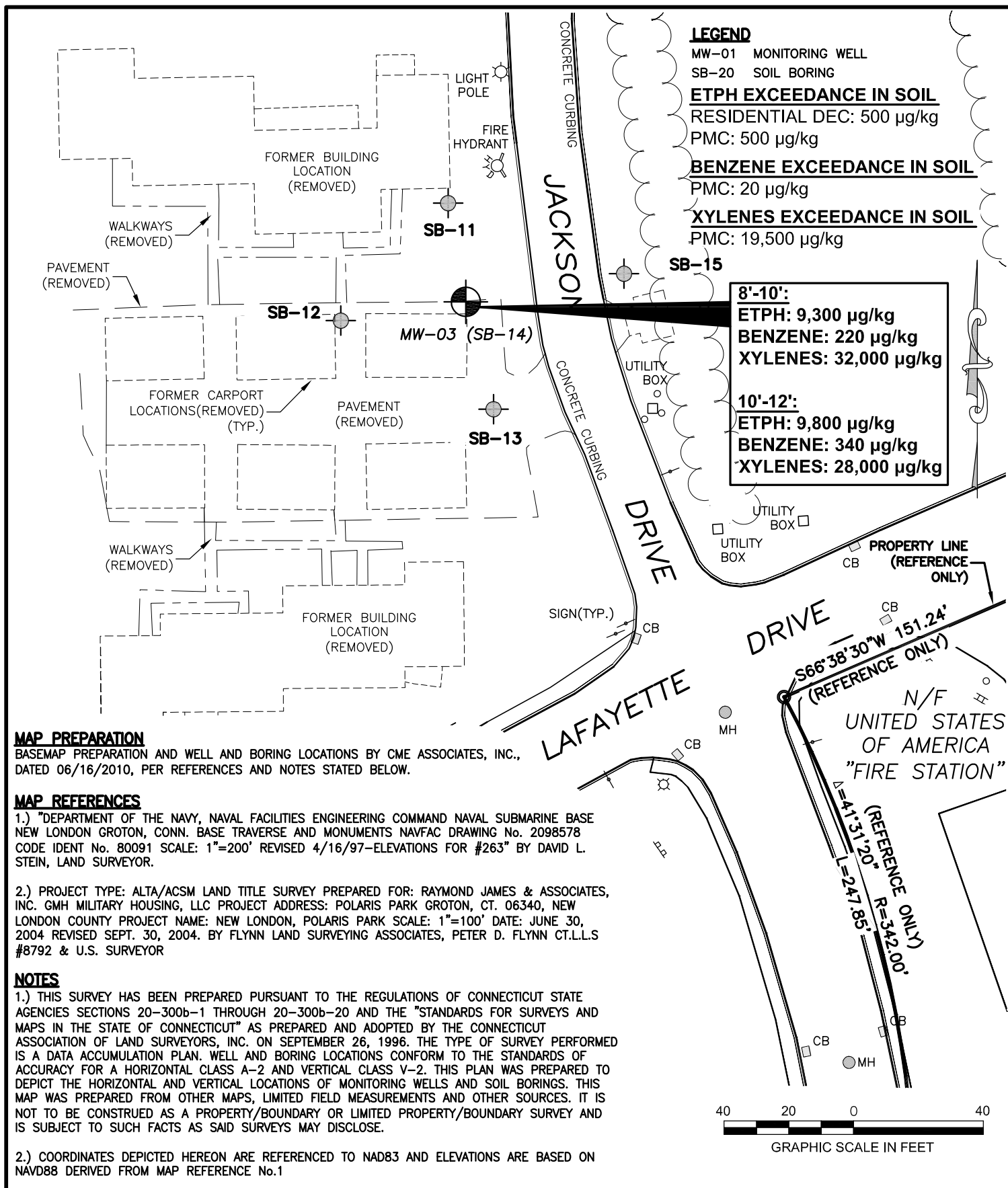
NAVAL SUBMARINE BASE GROTON, CT
SITE INVESTIGATION FOR USTs
SITE 6 POLARIS PARK
#8 USS ANDREW JACKSON DRIVE

CONTRACT NO.	WE-56
OWNER NO.	0000
APPROVED BY	DATE
DRAWING NO.	REV.
Figure 3-1	0



LEGEND

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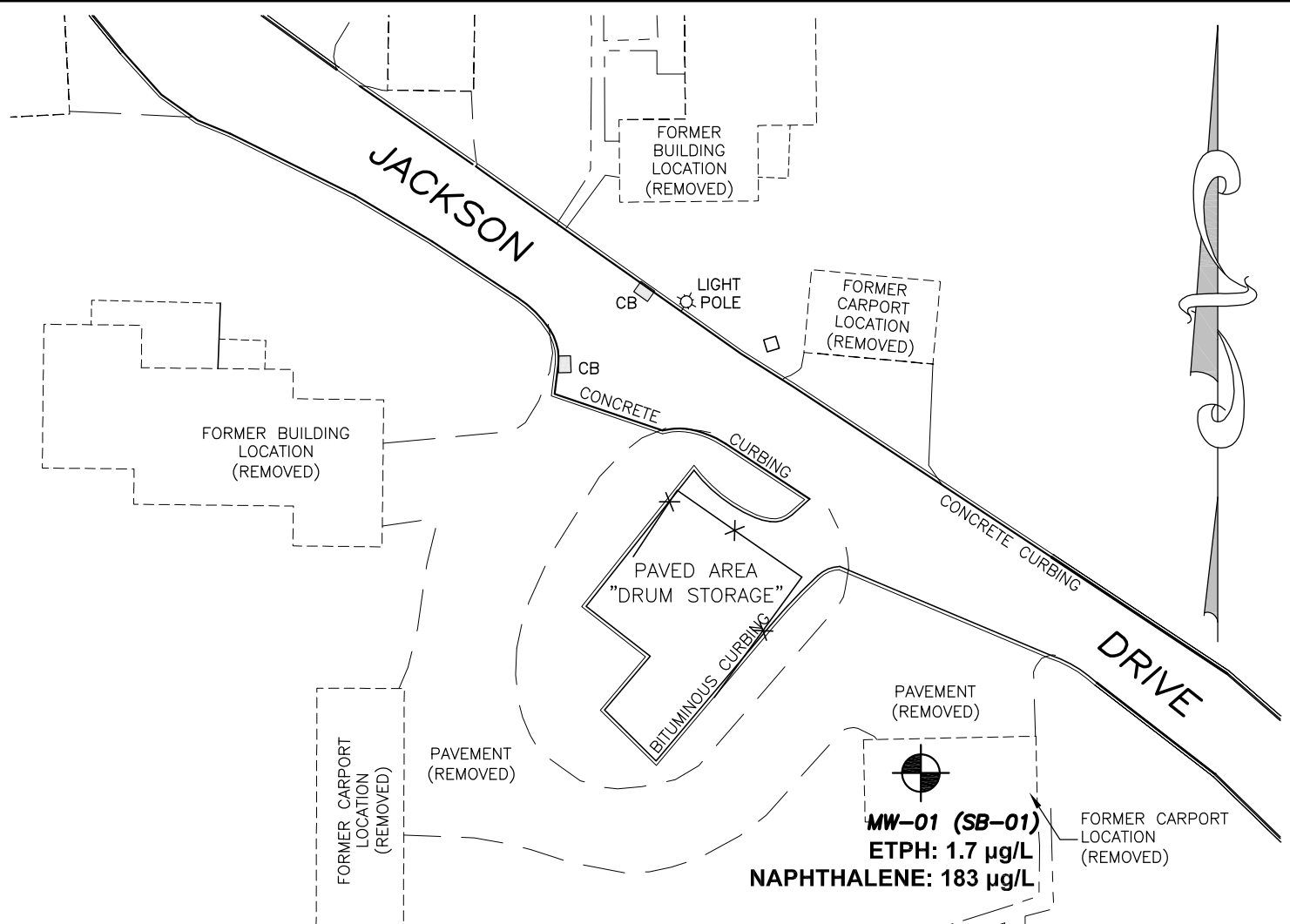


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CME	06/16/2010
CHECKED BY	DATE
CSG/DK	08/12/2010
REVISED BY	DATE
-	-
SCALE	
1"=40'	



NAVAL SUBMARINE BASE GROTON, CT
SITE INVESTIGATION FOR USTs
SITE 6 POLARIS PARK
#12 USS ANDREW JACKSON DRIVE

CONTRACT NO. WE-56	
OWNER NO. 0000	
APPROVED BY	DATE
DRAWING NO. Figure 3-3	
REV.	0



MAP PREPARATION

BASEMAP PREPARATION AND WELL AND BORING LOCATIONS BY CME ASSOCIATES, INC.,
DATED 06/16/2010, PER REFERENCES AND NOTES STATED BELOW.

MAP REFERENCES

- 1.) "DEPARTMENT OF THE NAVY, NAVAL FACILITIES ENGINEERING COMMAND NAVAL SUBMARINE BASE NEW LONDON GROTON, CONN. BASE TRAVERSE AND MONUMENTS NAVFAC DRAWING No. 2098578 CODE IDENT No. 80091 SCALE: 1"=200' REVISED 4/16/97-ELEVATIONS FOR #263" BY DAVID L. STEIN, LAND SURVEYOR.
- 2.) PROJECT TYPE: ALTA/ACSM LAND TITLE SURVEY PREPARED FOR: RAYMOND JAMES & ASSOCIATES, INC. GMH MILITARY HOUSING, LLC PROJECT ADDRESS: POLARIS PARK GROTON, CT. 06340, NEW LONDON COUNTY PROJECT NAME: NEW LONDON, POLARIS PARK SCALE: 1"=100' DATE: JUNE 30, 2004 REVISED SEPT. 30, 2004. BY FLYNN LAND SURVEYING ASSOCIATES, PETER D. FLYNN CT.L.L.S #8792 & U.S. SURVEYOR

NOTES

1.) THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS PREPARED AND ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996. THE TYPE OF SURVEY PERFORMED IS A DATA ACCUMULATION PLAN. WELL AND BORING LOCATIONS CONFORM TO THE STANDARDS OF ACCURACY FOR A HORIZONTAL CLASS A-2 AND VERTICAL CLASS V-2. THIS PLAN WAS PREPARED TO DEPICT THE HORIZONTAL AND VERTICAL LOCATIONS OF MONITORING WELLS AND SOIL BORINGS. THIS MAP WAS PREPARED FROM OTHER MAPS, LIMITED FIELD MEASUREMENTS AND OTHER SOURCES. IT IS NOT TO BE CONSTRUED AS A PROPERTY/BOUNDARY OR LIMITED PROPERTY/BOUNDARY SURVEY AND IS SUBJECT TO SUCH FACTS AS SAID SURVEYS MAY DISCLOSE.

2.) COORDINATES DEPICTED HEREON ARE REFERENCED TO NAD83 AND ELEVATIONS ARE BASED ON NAVD88 DERIVED FROM MAP REFERENCE No.1

LEGEND

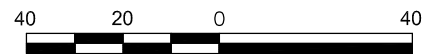
MW-01 MONITORING WELL

ETPH EXCEEDANCE IN GROUNDWATER

GWPC: 0.1 µg/L

NAPHTHALENE EXCEEDANCE IN GROUNDWATER

SWPC: 24 µg/L



GRAPHIC SCALE IN FEET

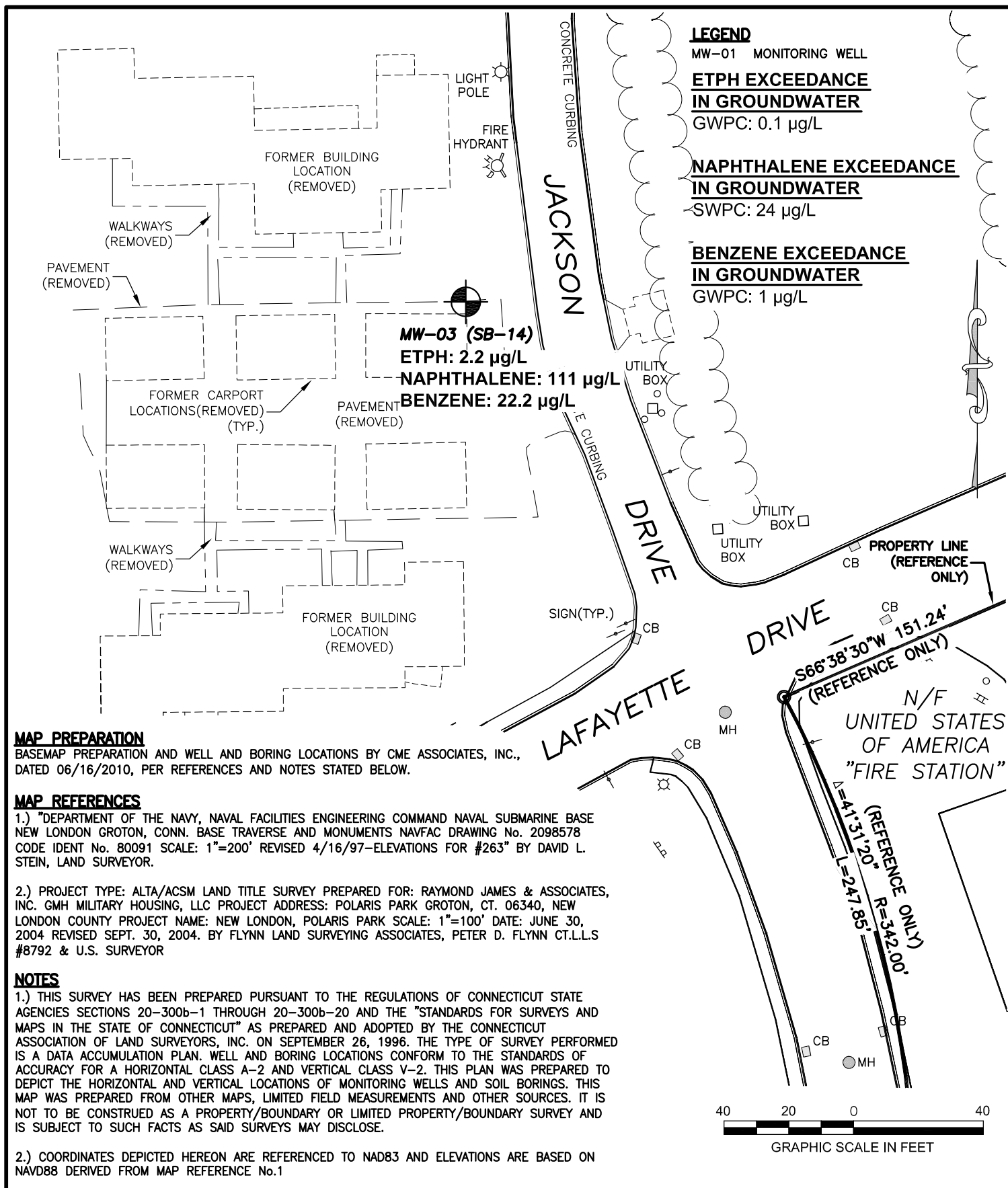
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CME	06/16/2010
CHECKED BY	DATE
CSG/DK	08/12/2010
REVISED BY	DATE
-	-
SCALE	
1"=40'	



NAVAL SUBMARINE BASE GROTON, CT
SITE INVESTIGATION FOR USTs
SITE 6 POLARIS PARK
#8 USS ANDREW JACKSON DRIVE

CONTRACT NO.	WE-56
OWNER NO.	0000
APPROVED BY	DATE
DRAWING NO.	REV.
Figure 3-4	0

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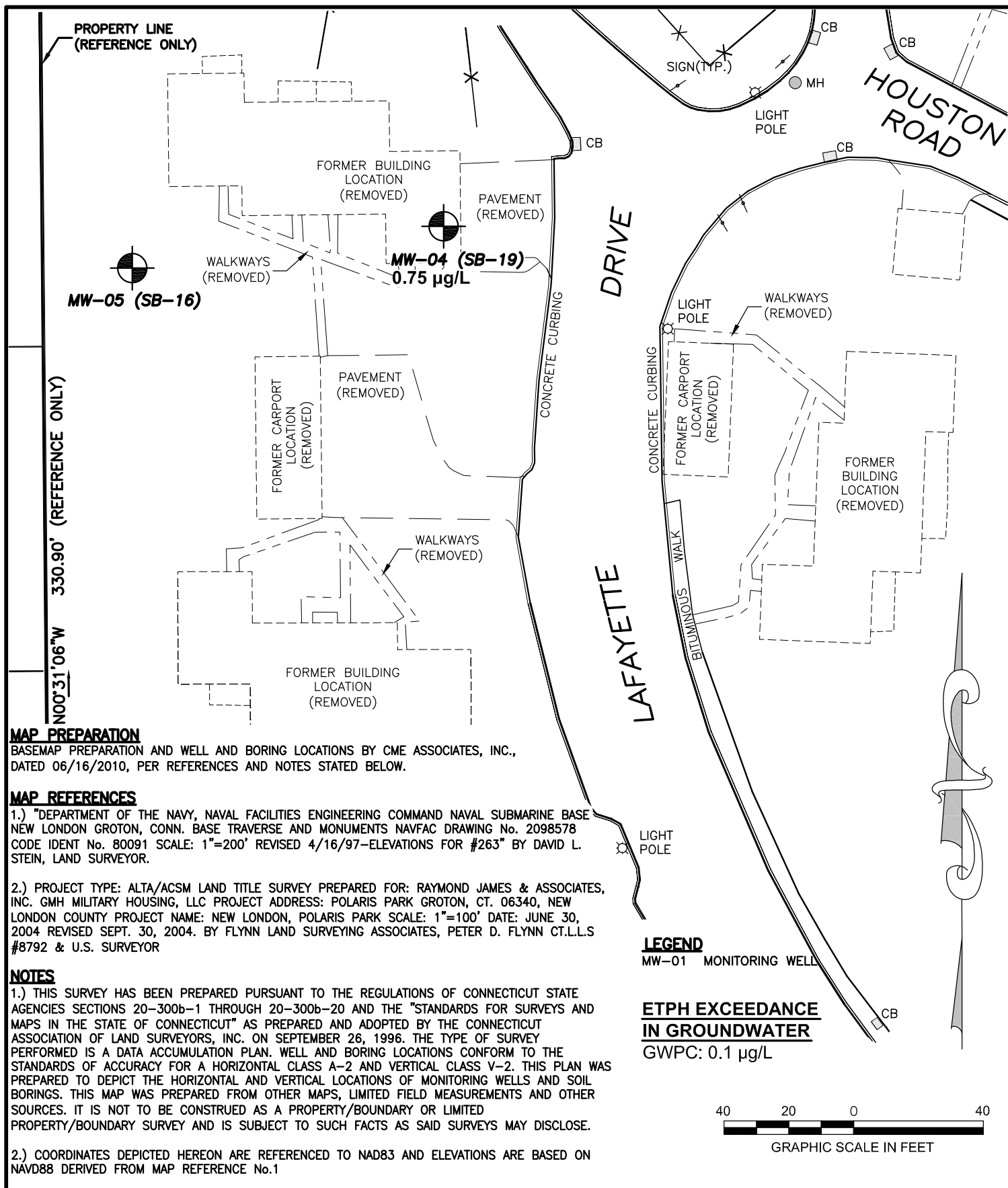
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CME	06/16/2010
CHECKED BY	DATE
CSG/DK	08/12/2010
REVISED BY	DATE
-	-
SCALE	
1"=40'	



NAVAL SUBMARINE BASE GROTON, CT
SITE INVESTIGATION FOR USTs
SITE 6 POLARIS PARK
#12 USS ANDREW JACKSON DRIVE

CONTRACT NO.	WE-56
OWNER NO.	0000
APPROVED BY	DATE
DRAWING NO.	REV.
Figure 3-5	0

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DRAWN BY	DATE
CME	06/16/2010
CHECKED BY	DATE
CSG/DK	08/12/2010
REVISED BY	DATE
-	-
SCALE	
1"=40'	



NAVAL SUBMARINE BASE GROTON, CT

SITE INVESTIGATION FOR USTs

SITE 6 POLARIS PARK

#46-47 USS LAFAYETTE DRIVE

CONTRACT NO.	WE-56
OWNER NO.	0000
APPROVED BY	DATE
DRAWING NO.	REV.
Figure 3-6	0

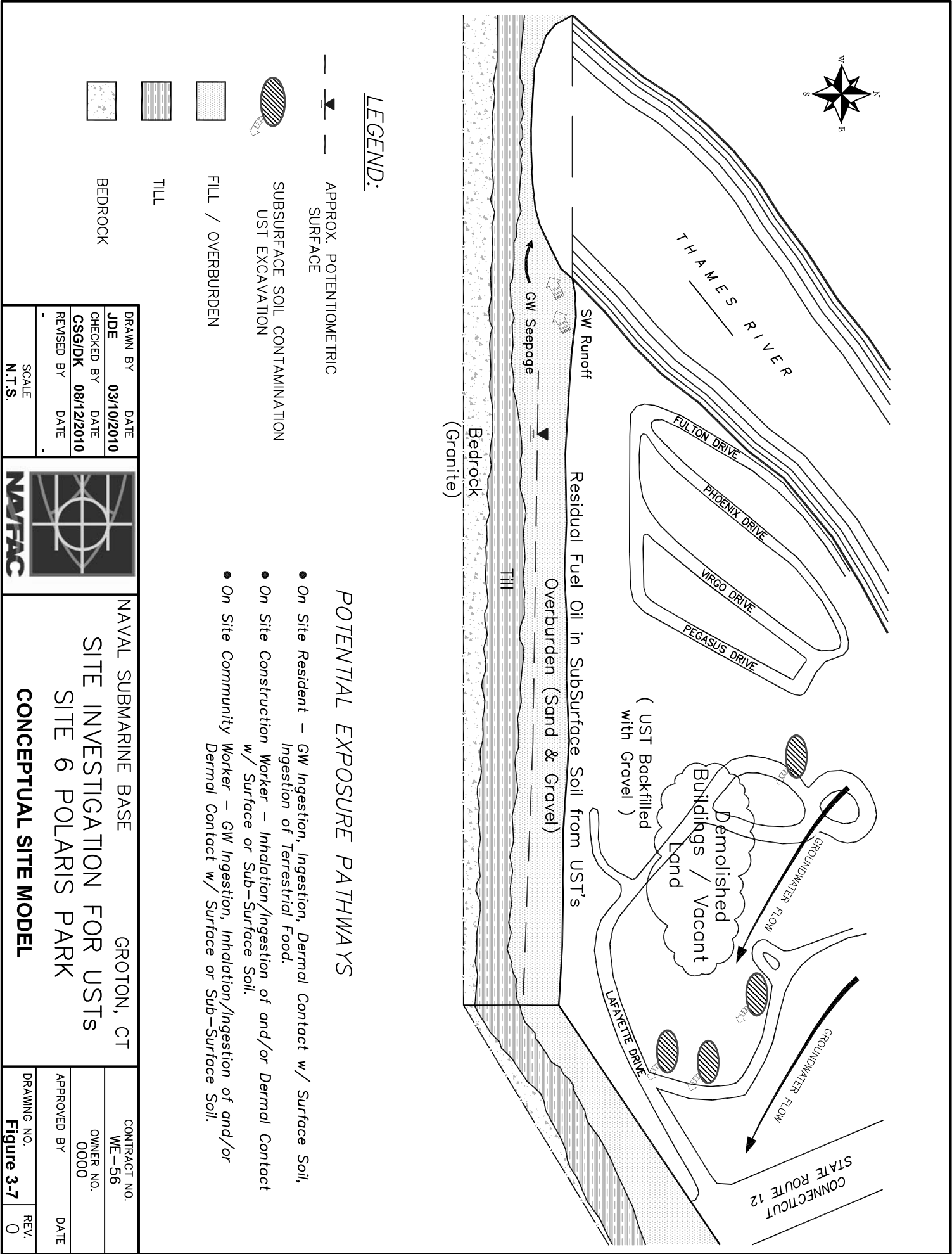


Table 2-1
Field Screening Readings
CTO WE56 - Polaris Park
June 2010

¹ Location	Depth (ft)	Maximum Organic Vapor ² Concentration (³ ppm/v)
SB-01	12 - 14	39.1
SB-01	14 - 16	265
SB-01	16 - 18	452
SB-01	22 - 24	132
SB-02	17 - 19	471
SB-02	23 - 25	267
SB-03	14 - 16	51.6
SB-03	22 - 24	78.2
SB-06	15.5 - 17.5	235
SB-09	5 - 7	544
SB-09	10 - 12	35
SB-09	12 - 14	1380
SB-09	14 - 16	1270
SB-09	18 - 20	243
SB-14	4 - 6	27.6
SB-14	8 - 10	996
SB-14	10 - 12	1030
SB-14	16 - 18	291
SB-19	4 - 6	258
SB-19	8 - 10	205
SB-20	4 - 6	248
SB-20	8 - 10	6.4

¹SB = soil boring

²Concentrations were measured using Ion Science
Pro Check 1000 model, 10.6 eV lamp

³ppm = parts per million

Table 2-2
Summary of Lithology
CTO WE56 Polaris Park
Groton, CT

Boring Location	UST Location	Total Depth	Sand/Silt	Sand/Gravel	Bedrock	Auger refusal	Groundwater
SB-1/MW-01	8 Jackson Drive	24'	4' - 7'	7' - 24'	N/A	NO	15.1'
SB-2	8 Jackson Drive	24'	4' - 8'	8' - 24'	N/A	NO	15.9'
SB-3	8 Jackson Drive	23'	-	14' - 23'	N/A	NO	14'
SB-4	8 Jackson Drive	18'	-	10' - 18'	N/A	5'	Boring collapse
SB-5	8 Jackson Drive	18'	14' - 18'	12' - 14'	N/A	10'	15'
SB-6	11 Jackson Drive	24'	-	16' - 24'	N/A	14'	13.5'
SB-7	11 Jackson Drive	18'	-	12' - 18'	N/A	10'	14'
SB-8	11 Jackson Drive	16'	-	10' - 16'	N/A	5'	10'
			10' - 13' / 18' - 20'				
SB-9/MW-02	11 Jackson Drive	20'		13' - 18'	N/A	5'	11.5'
SB-10	11 Jackson Drive	12'		8' - 12'	N/A	NO	7.9'
SB-11	12 Jackson Drive	14'	8' - 12'	12' - 14'	N/A	5'	10'
SB-12	12 Jackson Drive	16'	-	10' - 16'	N/A	4'	11.5'
SB-13	12 Jackson Drive	14'	-	8' - 14'	N/A	NO	10'
SB-14/MW-03	12 Jackson Drive	18'	5' - 11'	11' - 18'	N/A	NO	10'
SB-15	12 Jackson Drive	29'	8' - 16'	16' - 29'	N/A	NO	7.9'
SB-16/MW-05	46-47 Lafayette Drive	27'	20' - 27'	-	N/A	NO	9.8'
SB-17	46-47 Lafayette Drive	12'	8' - 12'	-	N/A	NO	8.5'
SB-18	46-47 Lafayette Drive	28'	8' - 28'	Trace gravel	N/A	7'	10.5'
SB-19/MW-04	46-47 Lafayette Drive	10'	4' - 10'	-	N/A	NO	2.5'
SB-20	46-47 Lafayette Drive	10'	4' - 10'	1' - 10'	N/A	NO	< 1'

N/A = Bedrock not encountered

Table 2-3
Monitoring Well Construction Details
CTO WE56 - Polaris Park
Groton, CT

Monitoring Well I.D.	UST Reference Location	Total Well Depth (ft)	Screened Interval (ft)	Approx. Screened Interval Elev.	Screen Length	Top of PVC Casing Elev (Measuring Point)
MW01	8 Jackson Drive	22.40	12.40 - 22.40	98.67 - 88.67	10	111.07
MW02	11 Jackson Drive	19.26	9.26 - 19.26	100.34 - 90.34	10	109.60
MW03	12 Jackson Drive	17.49	7.49 - 17.49	100.71 - 90.71	10	108.20
MW04	46-47 Lafayette Drive	12.84	2.84 - 12.84	201.79 - 191.79	10	204.63
MW05	46-47 Lafayette Drive	21.48	6.48 - 21.48	211.90 - 196.90	15	218.38

Table 2-4
Groundwater Elevation Summary Table
CTO WE56 - Polaris Park
Groton, CT

Monitoring Well I.D.	UST Reference Location	Top of PVC Casing Elev (Measuring Point)	5/18/2010 Depth to Water(ft)	GW Elevation	5/19/2010 Depth to Water(ft)	GW Elevation	5/20/2010 Depth to Water(ft)	GW Elevation	5/21/2010 Depth to Water(ft)	GW Elevation	5/24/2010 Depth to Water(ft)	GW Elevation	6/15/2010 Depth to Water(ft)	GW Elevation
MW01	8 Jackson Drive	111.07	-	-	-	-	-	-	13.9	97.17	13.89	97.18	14.90	96.17
MW02	11 Jackson Drive	109.60	-	-	-	-	11.26	98.34	-	-	11.47	98.13	12.33	97.27
MW03	12 Jackson Drive	108.20	-	-	-	-	-	-	10	98.20	9.79	98.41	10.65	97.55
MW04	46-47 Lafayette Drive	204.63	-	-	2.67	201.96	-	-	2.08	202.55	2.56	202.07	2.91	201.72
MW05	46-47 Lafayette Drive	218.38	9.8	208.58	-	-	-	-	15.15	203.23	13.94	204.44	11.03	207.35

Table 2-5
Monitoring Well Sampling
Water Quality Parameters
CTO WE-56 Polaris Park
June 2010

Monitoring Well Location	Temp. °C	Conductivity (µS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Description of Water
MW-01	12.65	220.8	6.43	-190	0.00	3.87	clear & colorless
MW-02	12.69	272.8	5.98	-43	0.20	0.9	clear & colorless
MW-03	12.24	276.2	6.45	-271	0.00	1.0	clear & colorless
MW-04	17.53	5027	12.18	-300	0.12	10.3	clear & colorless
MW-05	12.06	151.3	5.95	53	8.17	21.8	clear & colorless

TABLE 3-1
SUMMARY OF ANALYTICAL RESULTS
SOIL SAMPLING
CTO WE56 - POLARIS PARK
GROTON, CT

sample_id						06SB01-1416		06SB01-1618		06SB09-1214		06SB09-1416		06SB14-0810		06SB14-1012	
sample_date						20100512		20100512		20100514		20100514		20100517		20100517	
location						MW-01/SB-01		MW-01/SB-01		MW-02/SB-09		MW-02/SB-09		MW-03/SB-14		MW-03/SB-14	
project_no						02634_20100728		02634_20100728		02634_20100728		02634_20100728		02634_20100728		02634_20100728	
sample_coc						06SB01-1416		06SB01-1618		06SB09-1214		06SB09-1416		06SB14-0810		06SB14-1012	
qc_type						NM		NM		NM		NM		NM		NM	
matrix						SO		SO		SO		SO		SO		SO	
duplicate																	
top_depth							14		16		12		14		8		10
bottom_dep							16		18		14		16		10		12
depth_unit						FT		FT		FT		FT		FT		FT	
submatrix						SB		SB		SB		SB		SB		SB	
z	cas	CTDEP Resid. DEC	resdec_units	CTDEP PMC GA/GAA	CTDEP PMC Units		1		3		5		7		9		11
Miscellaneous Parameters (mg/kg)																	
TOTAL ORGANIC CARBON	TTNUS003	NA		NA				46000		47000							
Volatile Organics (ug/kg)																	
BENZENE	71-43-2	21000	UG/KG	20	UG/KG	3.6	U	3.5	U	250	U	4	U	220 [GAA]	J	340 [GAA]	
ETHYLBENZENE	100-41-4	500000	UG/KG	10100	UG/KG	120	J	160	J	1200		2	J	6800		6900	
M+P-XYLENES	TTNUS054	NA		NA		1400		510		3000		6.1	J	21000		19000	
METHYL TERT-BUTYL ETHER	1634-04-4	500000	UG/KG	2000	UG/KG	3.6	U	3.5	U	250	U	4	U	290	U	260	U
O-XYLENE	95-47-6	NA		NA		760		200	J	1700		3.1	J	10000		9000	
TOLUENE	108-88-3	500000	UG/KG	20000	UG/KG	2.1	J	5.5	J	250	U	4	U	2800		2300	
TOTAL XYLENES	1330-20-7	500000	UG/KG	19500	UG/KG	2200		710		4700		9.2	J	32000 [GAA]		28000 [GAA]	
Petroleum Hydrocarbons (mg/kg)																	
EXTRACTABLE PETROLEUM HYDROCARBONS	TTNUS573	500	MG/KG	500	MG/KG	3200 [RES] [GAA]		630 [RES] [GAA]	J	1600 [RES] [GAA]		840 [RES] [GAA]		9300 [RES] [GAA]		9800 [RES] [GAA]	
Notes:																	
U = Not detected at the reporting limit																	
J = analyte detcted below quantitation limit																	
UG/KG = microgram per kilogram (parts per billion)																	
MG/KG = milligram per kilogram (parts per million)																	
RES = CTDEP Residential Exposure Criteria																	
GAA = Groundwater Classification Criteria																	
3200 [RES] [GAA] = concentration exceeds applicable CT DEP RSR																	

TABLE 3-1
SUMMARY OF ANALYTICAL RESULTS
SOIL SAMPLING
CTO WE56 - POLARIS PARK
GROTON, CT

sample_id						06SB19-0406	06SB19-0810	06SB16-2022	06SB16-2628	06TBSO-051310	06TBSO-051910						
sample_date						20100519	20100519	20100517	20100517	20100513	20100519						
location						MW-04/SB-19	MW-04/SB-19	MW-05/SB-16	MW-05/SB-16	QC	QC						
project_no						02634_20100728	02634_20100728	02634_20100728	02634_20100728	02634_20100728	02634_20100728						
sample_coc						06SB19-0406	06SB19-0810	06SB16-2022	06SB16-2628	06TBSO-051310	06TBSO-051910						
qc_type						NM	NM	NM	MSD	TB	TB						
matrix						SO	SO	SO	SO	SO	SO						
duplicate																	
top_depth						4	8	20	26	-9999	-9999						
bottom_dep						6	10	22	28	-9999	-9999						
depth_unit						FT	FT	FT	FT	FT	FT						
submatrix						SB	SB	SB	SB	NA	NA						
z	cas	CTDEP Resid. DEC	resdec_units	CTDEP PMC GA/GAA	CTDEP PMC Units	13	15	17	19	21	27						
Miscellaneous Parameters (mg/kg)																	
TOTAL ORGANIC CARBON	TTNUS003	NA		NA													
Volatile Organics (ug/kg)																	
BENZENE	71-43-2	21000	UG/KG	20	UG/KG	3	U	2	J	3.3	U	3.6	U	5	U	5	U
ETHYLBENZENE	100-41-4	500000	UG/KG	10100	UG/KG	3	U	4.6		3.3	U	3.6	U	5	U	5	U
M+P-XYLENES	TTNUS054	NA		NA		3	U	14		3.3	U	3.6	U	5	U	5	U
METHYL TERT-BUTYL ETHER	1634-04-4	500000	UG/KG	2000	UG/KG	3	U	3.4	U	3.3	U	3.6	U	5	U	5	U
O-XYLENE	95-47-6	NA		NA		3	U	7		3.3	U	3.6	U	5	U	5	U
TOLUENE	108-88-3	500000	UG/KG	20000	UG/KG	3	U	3.8		3.3	U	3.6	U	1.1	J	5	U
TOTAL XYLENES	1330-20-7	500000	UG/KG	19500	UG/KG	3	U	21		3.3	U	3.6	U	5	U	5	U
Petroleum Hydrocarbons (mg/kg)																	
EXTRACTABLE PETROLEUM HYDROCARBONS	TTNUS573	500	MG/KG	500	MG/KG	27	UJ	26	U	28	UJ	26	UJ				

Notes:

U = Not detected at the reporting limit
J = analyte detected below quantitation limit
UG/KG = microgram per kilogram (parts per billion)
MG/KG = milligram per kilogram (parts per million)
RES = CTDEP Residential Exposure Criteria
GAA = Groundwater Classification Criteria

3200 [RES] [GAA] = concentration exceeds applicable CT DEP RSR

TABLE 3-1
SUMMARY OF ANALYTICAL RESULTS
SOIL SAMPLING
CTO WE56 - POLARIS PARK
GROTON, CT

sample_id						06SB02-1719	06SB02-2325	06SB03-1416	06SB03-2224	06SB03-2224-AVG	06SB03-2224-D	06SB04-1214
sample_date						20100512	20100512	20100512	20100512	20100512	20100512	20100519
location						SB-02	SB-02	SB-03	SB-03	SB-03	SB-03	SB-04
project_no						02634_20100728	02634_20100728	02634_20100728	02634_20100728	02634_20100728	02634_20100728	02634_20100728
sample_coc						06SB02-1719	06SB02-2325	06SB03-1416	06SB03-2224	06SB03-2224-AVG	06SBDUP01	06SB04-1214
qc_type						NM	NM	NM	NM	NM	FD	NM
matrix						SO	SO	SO	SO	SO	SO	SO
duplicate											06SB03-2224	
top_depth						17	23	14	22	22	22	12
bottom_dep						19	25	16	24	24	24	14
depth_unit						FT	FT	FT	FT	FT	FT	FT
submatrix						SB	SB	SB	SB	SB	SB	SB
z	cas	CTDEP Resid. DEC	resdec_units	CTDEP PMC GA/GAA	CTDEP PMC Units	31	33	35	37	38	40	43
Miscellaneous Parameters (mg/kg)												
TOTAL ORGANIC CARBON	TTNUS003	NA		NA								
Volatile Organics (ug/kg)												
BENZENE	71-43-2	21000	UG/KG	20	UG/KG	4	U	3.8	U	3.6	U	3.5
ETHYLBENZENE	100-41-4	500000	UG/KG	10100	UG/KG	1.9	J	3.8	U	3.6	U	3.5
M+P-XYLENES	TTNUS054	NA		NA		2.1	J	1	J	3.6	U	3.5
METHYL TERT-BUTYL ETHER	1634-04-4	500000	UG/KG	2000	UG/KG	4	U	3.8	U	3.6	U	3.5
O-XYLENE	95-47-6	NA		NA		4	U	3.8	U	3.6	U	3.5
TOLUENE	108-88-3	500000	UG/KG	20000	UG/KG	4	U	3.8	U	3.6	U	3.5
TOTAL XYLENES	1330-20-7	500000	UG/KG	19500	UG/KG	2.1	J	1	J	3.6	U	3.5
Petroleum Hydrocarbons (mg/kg)												
EXTRACTABLE PETROLEUM HYDROCARBONS	TTNUS573	500	MG/KG	500	MG/KG	1100 [RES] [GAA]	J	97		27	U	24

Notes:
U = Not detected at the reporting limit
J = analyte detcted below quantitation limit
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MG/KG = milligram per kilogram (parts per million)
RES = CTDEP Residential Exposure Criteria
GAA = Groundwater Classification Criteria

3200 [RES] [GAA] = concentration exceeds applicable CT DEP RSR

TABLE 3-1
SUMMARY OF ANALYTICAL RESULTS
SOIL SAMPLING
CTO WE56 - POLARIS PARK
GROTON, CT

sample_id						06SB04-1618	06SB05-1416	06SB05-1618	06SB06-1517	06SB06-2224	06SB07-1214	06SB07-1416							
sample_date						20100519	20100519	20100519	20100513	20100513	20100514	20100514							
location						SB-04	SB-05	SB-05	SB-06	SB-06	SB-07	SB-07							
project_no						02634_20100728	02634_20100728	02634_20100728	02634_20100728	02634_20100728	02634_20100728	02634_20100728							
sample_coc						06SB04-1618	06SB05-1416	06SB05-1618	06SB06-1517	06SB06-2224	06SB07-1214	06SB07-1416							
qc_type						NM	NM	NM	NM	MS	NM	NM							
matrix						SO	SO	SO	SO	SO	SO	SO							
duplicate																			
top_depth						16	14	16	15	22	12	14							
bottom_dep						18	16	18	17	24	14	16							
depth_unit						FT	FT	FT	FT	FT	FT	FT							
submatrix						SB	SB	SB	SB	SB	SB	SB							
z	cas	CTDEP Resid. DEC	resdec_units	CTDEP PMC GA/GAA	CTDEP PMC Units	45	47	49	51	53	55	57							
Miscellaneous Parameters (mg/kg)																			
TOTAL ORGANIC CARBON	TTNUS003	NA		NA															
Volatile Organics (ug/kg)																			
BENZENE	71-43-2	21000	UG/KG	20	UG/KG	4.2	U	3.9	U	3.7	U	4.1	U	4.2	UJ	3.6	U	3.4	U
ETHYLBENZENE	100-41-4	500000	UG/KG	10100	UG/KG	4.2	U	3.9	U	3.7	U	4.1	U	4.2	UJ	3.6	U	3.4	U
M+P-XYLENES	TTNUS054	NA		NA		4.2	U	3.9	U	3.7	U	4.1	U	4.2	UJ	3.6	U	3.4	U
METHYL TERT-BUTYL ETHER	1634-04-4	500000	UG/KG	2000	UG/KG	4.2	U	3.9	U	3.7	U	4.1	U	4.2	U	3.6	U	3.4	U
O-XYLENE	95-47-6	NA		NA		4.2	U	3.9	U	3.7	U	4.1	U	4.2	UJ	3.6	U	3.4	U
TOLUENE	108-88-3	500000	UG/KG	20000	UG/KG	4.2	U	3.9	U	3.7	U	4.1	U	4.2	UJ	3.6	U	3.4	U
TOTAL XYLENES	1330-20-7	500000	UG/KG	19500	UG/KG	4.2	U	3.9	U	3.7	U	4.1	U	4.2	UJ	3.6	U	3.4	U
Petroleum Hydrocarbons (mg/kg)																			
EXTRACTABLE PETROLEUM HYDROCARBONS	TTNUS573	500	MG/KG	500	MG/KG	27	U	29	U	29	U	610 [RES] [GAA]	J	28	U	26	U	28	U

Notes:
U = Not detected at the reporting limit
J = analyte detcted below quantitation limit
UG/KG = microgram per kilogram (parts per billion)
MG/KG = milligram per kilogram (parts per million)
RES = CTDEP Residential Exposure Criteria
GAA = Groundwater Classification Criteria
3200 [RES] [GAA] = concentration exceeds applicable CT DEP RSR

TABLE 3-1
SUMMARY OF ANALYTICAL RESULTS
SOIL SAMPLING
CTO WE56 - POLARIS PARK
GROTON, CT

sample_id						06SB08-1214	06SB08-1416	06SB10-0810	06SB10-1214	06SB10-1214-AVG	06SB10-1214-D	06SB11-0810							
sample_date						20100514	20100514	20100520	20100520	20100520	20100520	20100514							
location						SB-08	SB-08	SB-10	SB-10	SB-10	SB-10	SB-11							
project_no						02634_20100728	02634_20100728	02634_20100728	02634_20100728	02634_20100728	02634_20100728	02634_20100728							
sample_coc						06SB08-1214	06SB08-1416	06SB10-0810	06SB10-1214	06SB10-1214-AVG	06SBDUP02	06SB11-0810							
qc_type						NM	NM	NM	NM	NM	FD	NM							
matrix						SO	SO	SO	SO	SO	SO	SO							
duplicate											06SB10-1214								
top_depth						12	14	8	12	12	12	8							
bottom_dep								10	14	14	14	10							
depth_unit						FT	FT	FT	FT	FT	FT	FT							
submatrix						SB	SB	SB	SB	SB	SB	SB							
z	cas	CTDEP Resid. DEC	resdec_units	CTDEP PMC GA/GAA	CTDEP PMC Units	59	61	63	65	66	68	71							
Miscellaneous Parameters (mg/kg)																			
TOTAL ORGANIC CARBON	TTNUS003	NA		NA															
Volatile Organics (ug/kg)																			
BENZENE	71-43-2	21000	UG/KG	20	UG/KG	3.7	U	4	U	4.1	U	4.3	U	4	U	3.7	U	4	U
ETHYLBENZENE	100-41-4	500000	UG/KG	10100	UG/KG	3.7	U	4	U	4.1	U	4.3	U	4	U	3.7	U	4	U
M+P-XYLENES	TTNUS054	NA		NA		3.7	U	4	U	4.1	U	4.3	U	4	U	3.7	U	4	U
METHYL TERT-BUTYL ETHER	1634-04-4	500000	UG/KG	2000	UG/KG	3.7	U	4	U	4.1	U	4.3	U	4	U	3.7	U	4	U
O-XYLENE	95-47-6	NA		NA		3.7	U	4	U	4.1	U	4.3	U	4	U	3.7	U	4	U
TOLUENE	108-88-3	500000	UG/KG	20000	UG/KG	3.7	U	4	U	4.1	U	4.3	U	4	U	3.7	U	4	U
TOTAL XYLENES	1330-20-7	500000	UG/KG	19500	UG/KG	3.7	U	4	U	4.1	U	4.3	U	4	U	3.7	U	4	U
Petroleum Hydrocarbons (mg/kg)																			
EXTRACTABLE PETROLEUM HYDROCARBONS	TTNUS573	500	MG/KG	500	MG/KG	27	U	29		29	U	27	U	27	UJ	27	UJ	31	UJ

Notes:
U = Not detected at the reporting limit
J = analyte detcted below quantitation limit
UG/KG = microgram per kilogram (parts per billion)
MG/KG = milligram per kilogram (parts per million)
RES = CTDEP Residential Exposure Criteria
GAA = Groundwater Classification Criteria

3200 [RES] [GAA] = concentration exceeds applicable CT DEP RSR

TABLE 3-1
SUMMARY OF ANALYTICAL RESULTS
SOIL SAMPLING
CTO WE56 - POLARIS PARK
GROTON, CT

sample_id						06SB11-1012		06SB12-1214		06SB12-1416		06SB13-1012		06SB13-1214		06SB15-0810		06SB15-1012	
sample_date						20100514		20100517		20100517		20100517		20100517		20100520		20100520	
location						SB-11		SB-12		SB-12		SB-13		SB-13		SB-15		SB-15	
project_no						02634_20100728		02634_20100728		02634_20100728		02634_20100728		02634_20100728		02634_20100728		02634_20100728	
sample_coc						06SB11-1012		06SB12-1214		06SB12-1416		06SB13-1012		06SB13-1214		06SB15-0810		06SB15-1012	
qc_type						NM		NM		NM		NM		NM		NM		NM	
matrix						SO		SO		SO		SO		SO		SO		SO	
duplicate																			
top_depth							10		12		14		10		12		8		10
bottom_dep							12		14		16		12		14		10		12
depth_unit						FT		FT		FT		FT		FT		FT		FT	
submatrix						SB		SB		SB		SB		SB		SB		SB	
z	cas	CTDEP Resid. DEC	resdec_units	CTDEP PMC GA/GAA	CTDEP PMC Units		73		75		77		79		81		83		85
Miscellaneous Parameters (mg/kg)																			
TOTAL ORGANIC CARBON	TTNUS003	NA		NA															
Volatile Organics (ug/kg)																			
BENZENE	71-43-2	21000	UG/KG	20	UG/KG	4.4	U	4.4	U	4	U	4.2	U	3.3	UJ	3.8	U	3.8	U
ETHYLBENZENE	100-41-4	500000	UG/KG	10100	UG/KG	4.4	U	4.4	U	4	U	4.2	U	3.3	UJ	3.8	U	3.8	U
M+P-XYLENES	TTNUS054	NA		NA		4.4	U	4.4	U	4	U	4.2	U	3.3	UJ	3.8	U	3.8	U
METHYL TERT-BUTYL ETHER	1634-04-4	500000	UG/KG	2000	UG/KG	4.4	U	4.4	U	4	U	4.2	U	3.3	UJ	3.8	U	3.8	U
O-XYLENE	95-47-6	NA		NA		4.4	U	4.4	U	4	U	4.2	U	3.3	UJ	3.8	U	3.8	U
TOLUENE	108-88-3	500000	UG/KG	20000	UG/KG	4.4	U	4.4	U	4	U	4.2	U	3.3	UJ	3.8	U	3.8	U
TOTAL XYLENES	1330-20-7	500000	UG/KG	19500	UG/KG	4.4	U	4.4	U	4	U	4.2	U	3.3	UJ	3.8	U	3.8	U
Petroleum Hydrocarbons (mg/kg)																			
EXTRACTABLE PETROLEUM HYDROCARBONS	TTNUS573	500	MG/KG	500	MG/KG	50	J	28	UJ	28	U	28	UJ	27	UJ	30	U	29	U

Notes:
U = Not detected at the reporting limit
J = analyte detcted below quantitation limit
UG/KG = microgram per kilogram (parts per billion)
MG/KG = milligram per kilogram (parts per million)
RES = CTDEP Residential Exposure Criteria
GAA = Groundwater Classification Criteria

3200 [RES] [GAA] = concentration exceeds applicable CT DEP RSR

TABLE 3-1
SUMMARY OF ANALYTICAL RESULTS
SOIL SAMPLING
CTO WE56 - POLARIS PARK
GROTON, CT

sample_id						06SB17-0810	06SB17-1012	06SB18-0810	06SB18-1012	06SB20-0103	06SB20-0406						
sample_date						20100518	20100518	20100518	20100518	20100519	20100519						
location						SB-17	SB-17	SB-18	SB-18	SB-20	SB-20						
project_no						02634_20100728	02634_20100728	02634_20100728	02634_20100728	02634_20100728	02634_20100728						
sample_coc						06SB17-0810	06SB17-1012	06SB18-0810	06SB18-1012	06SB20-0103	06SB20-0406						
qc_type						NM	NM	NM	NM	NM	NM						
matrix						SO	SO	SO	SO	SO	SO						
duplicate																	
top_depth							8		8								
bottom_dep						10		10		10							
depth_unit						FT	FT	FT	FT	FT	FT						
submatrix						SB	SB	SB	SB	SB	SB						
Z	cas					87		89		91							
Miscellaneous Parameters (mg/kg)																	
TOTAL ORGANIC CARBON	TTNUS003	NA		NA								37000					
Volatile Organics (ug/kg)																	
BENZENE	71-43-2	21000	UG/KG	20	UG/KG	4	U	3.6	U	4.1	UJ	3.3	U	4.6	U	5.7	U
ETHYLBENZENE	100-41-4	500000	UG/KG	10100	UG/KG	4	U	3.6	U	4.1	UJ	3.3	U	4.6	U	5.7	U
M+P-XYLENES	TTNUS054	NA		NA		4	U	3.6	U	4.1	UJ	3.3	U	4.6	U	5.7	U
METHYL TERT-BUTYL ETHER	1634-04-4	500000	UG/KG	2000	UG/KG	4	U	3.6	U	4.1	UJ	3.3	U	4.6	U	5.7	U
O-XYLENE	95-47-6	NA		NA		4	U	3.6	U	4.1	UJ	3.3	U	4.6	U	5.7	U
TOLUENE	108-88-3	500000	UG/KG	20000	UG/KG	4	U	3.6	U	4.1	UJ	3.3	U	4.6	U	5.7	U
TOTAL XYLENES	1330-20-7	500000	UG/KG	19500	UG/KG	4	U	3.6	U	4.1	UJ	3.3	U	4.6	U	5.7	U
Petroleum Hydrocarbons (mg/kg)																	
EXTRACTABLE PETROLEUM HYDROCARBONS	TTNUS573	500	MG/KG	500	MG/KG	28	U	26	U	26	U	26	U	98		150	

Notes:

U = Not detected at the reporting limit
J = analyte detected below quantitation limit
UG/KG = microgram per kilogram (parts per billion)
MG/KG = milligram per kilogram (parts per million)
RES = CTDEP Residential Exposure Criteria
GAA = Groundwater Classification Criteria

3200 [RES] [GAA] = concentration exceeds applicable CT DEP RSR

TABLE 3-2
SUMMARY OF ANALYTICAL RESULTS
GROUNDWATER SAMPLING
CTO WE56 - POLARIS PARK
GROTON, CT

sample_id sample_date location project_no sample_coc qc_type matrix duplicate								06MW01-20100615 20100615 6MW-01 02634_20100804 06MW01-20100615 NM GW	06MW02-20100615 20100615 6MW-02 02634_20100804 06MW02-20100615 NM GW	06MW03-20100615 20100615 6MW-03 02634_20100804 06MW03-20100615 NM GW	06MW04-20100615 20100615 6MW-04 02634_20100804 06MW04-20100615 NM GW	06MW05-20100615 20100615 6MW-05 02634_20100804 06MW05-20100615 NM GW	06MW05-20100615-AVG 20100615 6MW-05 02634_20100804 06MW05-20100615-AVG NM GW
	cas	CTDEP GWPC	gwpc_units	CTDEP SWPC	swpc_units	CTDEP RESID. VC	resvc_units						

VPH - Volatile Organics (ug/L)

BENZENE	71-43-2	1	ug/L	710	ug/L	130	ug/L	10	U	5	U	22.2 [GW]		5	U	5	U	5	U
ETHYLBENZENE	100-41-4	700	ug/L	580000	ug/L	2,700	ug/L	47.4		5	U	41.4		5	U	5	U	5	U
METHYL TERT-BUTYL ETHER	1634-04-4	70	ug/L	710	ug/L	21,000	ug/L	10	U	5	U	5	U	5	U	5	U	5	U
NAPHTHALENE	91-20-3	280	ug/L	24	ug/L	NE	ug/L	183 [SW]		5	U	111 [SW]		5	U	5	U	5	U
TOLUENE	108-88-3	1000	ug/L	4000000	ug/L	7,100	ug/L	36.2		5	U	5.6		5	U	5	U	5	U
C5-C8 ALIPHATICS	TTNUS083	NA		NA		NA		156		75	U	122		75	U	75	U	75	U
C9-C10 AROMATICS	TTNUS167	NA		NA		NA		726		25	U	303		25	U	25	U	25	U
C9-C12 ALIPHATICS	TTNUS168	NA		NA		NA		1460		25	U	594		30.2		25	U	25	U
M+P-XYLENES	TTNUS054	NA		NA		NA		65		10	U	58.4		10	U	10	U	10	U
O-XYLENE	95-47-6	NA		NA		NA		70.5		5	U	15.9		5	U	5	U	5	U

Petroleum Hydrocarbons (mg/L)

EXTRACTABLE PETROLEUM HYDROCARBONS	TTNUS573	0.1	mg/L	NA		NE		1.7 [GW]		0.035	U	2.2 [GW]		0.75 [GW]		0.035	U	0.035	U
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Notes:

U = Not detected at the reporting limit

J = analyte detcted below quantitation limit

UG/L = microgram per liter (parts per billion)

MG/L - milligram per liter (parts per million)

GW = Groundwater Protection Criteria (CTDEP GWPC)

SW = Surface Water Protection Criteria (CTDEP SWPC)

1.7 [GW] = concentration exceeds applicable CT DEP RSR (GWPC) or SWPC

TABLE 3-2
SUMMARY OF ANALYTICAL RESULTS
GROUNDWATER SAMPLING
CTO WE56 - POLARIS PARK
GROTON, CT

sample_id sample_date location project_no sample_coc qc_type matrix duplicate								06MW05-20100615-D 20100615 6MW-05 02634_20100804 06MW10-20100615 FD GW 06MW05-20100615	TB_20100615 20100615 QC 02634_20100804 TRIP BLANK TB QC
	cas	CTDEP GWPC	gwpc_units	CTDEP SWPC	swpc_units	CTDEP RESID. VC	resvc_units		

VPH - Volatile Organics (ug/L)

BENZENE	71-43-2	1	ug/L	710	ug/L	130	ug/L	5	U	5	U
ETHYLBENZENE	100-41-4	700	ug/L	580000	ug/L	2,700	ug/L	5	U	5	U
METHYL TERT-BUTYL ETHER	1634-04-4	70	ug/L	710	ug/L	21,000	ug/L	5	U	5	U
NAPHTHALENE	91-20-3	280	ug/L	24	ug/L	NE	ug/L	5	U	5	U
TOLUENE	108-88-3	1000	ug/L	4000000	ug/L	7,100	ug/L	5	U	5	U
C5-C8 ALIPHATICS	TTNUS083	NA		NA		NA		75	U	75	U
C9-C10 AROMATICS	TTNUS167	NA		NA		NA		25	U	25	U
C9-C12 ALIPHATICS	TTNUS168	NA		NA		NA		25	U	25	U
M+P-XYLENES	TTNUS054	NA		NA		NA		10	U	10	U
O-XYLENE	95-47-6	NA		NA		NA		5	U	5	U

Petroleum Hydrocarbons (mg/L)

EXTRACTABLE PETROLEUM HYDROCARBONS	TTNUS573	0.1	mg/L	NA		NE		0.035	U		
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Notes:

U = Not detected at the reporting limit
J = analyte detcted below quantitation limit
UG/L = microgram per liter (parts per billion)
MG/L - milligram per liter (parts per million)
GW = Groundwater Protection Criteria (CTDEP GWPC)
SW = Surface Water Protection Criteria (CTDEP SWPC)

1.7 [GW] = concentration exceeds applicable CT DEP RSR (GWPC) or SWPC

APPENDIX A

Soil Boring Logs

BORING LOG FOR: Polaris Park Family Housing, NSNL, CT
 PROJECT NO.: 112G02634.FLWI
 LOGGED BY: Robin Clark and Eric Watt
 DRILLED BY (Company/Driller): GeoSearch/Chris Stamas
 GRD. SURFACE ELEVATION: _____

BORING NO.: 06SB01
 START DATE: 05/12/2010
 COMPLETION DATE: 05/12/2010
 MON. WELL NO.: 06MW01

TRANSCRIBED BY: EW
 ELEVATION FROM: _____

CHECKED BY: _____

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
4	2	14 / 18	0940			Brown	Dry, silty to fine sand	SM		N/A*
5	4		No sample							
6	22	23 / 24	0955			Brown	0-5" same as above. 5"-12" asphalt and concrete			0.0
7	27									
8	40					Grey / Brown	Dry, fine to medium, poorly sorted, sand with little sub-angular to sub-rounded gravel	SW	7' bottom of tank	
9	47					Tan / Grey	Dry, fine to coarse, poorly sorted sand with little platy, blocky, and crushed granite	SW	No odor, no visible impact	N/A*
10	15	15 / 24	No sample							
11	24									
12	44									
13	30	4 / 6	No sample			Grey	Similar to above	SW	No odor, no visible impact	N/A*
14	18									
15	40	23 / 24	1045			Grey	Dry, fine to coarse, poorly sorted sand with little platy and blocky granite, and trace sub-angular gravel	SW	Petroleum odor detected at 12' 6"	39.1
16	33					Brown				
17	38									
18	50									
19	22	23 / 24	1055			Grey	Dry to moderately moist, fine to medium, moderately sand with little blocky granite	SW	Petroleum odor	265
20	28					Brown				
21	38	22 / 24	1100			Grey	Wet, fine to coarse, moderately sorted sand, with trace blocky granite and trace feldspar	SW	Petroleum odor	452
22	18									
23	12									
24										
25										
26										
27										
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97										
98										
99										
100										

TYPE OF DRILLING RIG: _____

METHOD OF ADVANCING BORING: 4 1/4 inch hollow stem auger


METHOD OF SOIL SAMPLING: 2 in split spoon

METHOD OF ROCK CORING: NA

GROUNDWATER LEVELS: _____

OTHER OBSERVATIONS: Drilled down to 4', then collected first sample. *N/A - No screening data because no sample collected.

Tetra Tech NUS, Inc.



PAGE: 1 OF 2

TINUS Form 0018

Polaris Park Family Housing, NSNL, CT

PROJECT NO.:

LOGGED BY:

DRILLED BY (Company/Driller):

GRD. SURFACE ELEVATION:

Polaris Park Family Housing, NSNL, CT
112G02634.FI.WI

Robin Clark and Eric Watt

GeoSearch/Chris Stamas

BORING NO.:

START DATE:

COMPLETION: DATE:

MON. WELL NO.:

CHECKED BY:

TRANSCRIBED BY: EW

ELEVATION FROM:

06SB01

05/12/2010

05/12/2010

06MW01

[illegible]

TYPE OF DRILLING RIG:

METHOD OF ADVANCING BORING:

METHOD OF SOIL SAMPLING:

METHOD OF ROCK CORING

GROUNDWATER LEVELS:

OTHER OBSERVATIONS:

4 1/4 inch hollow stem auger

2 in split spoon

NA
2 III 3

15.1'

13.1 Sheen present on GW

Tetra Tech NUS, Inc.



BORING NO.: 06SB01

PAGE: 2 OF 2

TTtNUS Form 0018

BORING LOG FOR: Polaris Park Family Housing, NSNL, CT
 PROJECT NO.: 112G02634.FLWI
 LOGGED BY: Robin Clark Eric Watt
 DRILLED BY (Company/Driller): GeoSearch / Chris Stamas
 GRD. SURFACE ELEVATION: _____

BORING NO.: 06SB02
 START DATE: 05/12/2010
 COMPLETION DATE: 05/12/2010
 MON. WELL NO.: _____
 CHECKED BY: _____

TRANSCRIBED BY: EW
 ELEVATION FROM: _____

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MFT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
0										
1										
2										
3										
4	2									
5	3	23 / 24	1305			Light grey	Dry, silty to fine sand	SM		0.6
6	3									
7										
8										
9										
10										
11										
12										
13	12									
14	19	14 / 18	1405			Brown	Dry, fine to medium, poorly sorted sand with little coarse sand and fine gravel	SW		2.0
15	14	22 / 24	1415			Brown	Dry, fine to medium, moderately sorted sand with some subangular to sub rounded gravel (cont'd)	SW		3.9

TYPE OF DRILLING RIG: _____

METHOD OF ADVANCING BORING: 4 1/4 inch hollow stem auger


METHOD OF SOIL SAMPLING: 2 in split spoon

METHOD OF ROCK CORING: NA

GROUNDWATER LEVELS: 15.9'

OTHER OBSERVATIONS: _____

Tetra Tech NUS, Inc.




BORING NO.: 06SB02 PAGE: 1 OF 2

TNUS Form 0018

BORING LOG FOR: Polaris Park Family Housing, NSNL, CT
 PROJECT NO.: 112G02634.F1.WI
 LOGGED BY: Robin Clark Eric Watt
 DRILLED BY (Company/Driller): GeoSearch / Chris Stamas
 GRD. SURFACE ELEVATION: _____

[illegible]

TYPE OF DRILLING RIG:			Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	4 1/4 inch hollow stem auger		
METHOD OF SOIL SAMPLING:	2 in split spoon		
METHOD OF ROCK CORING:	NA		
GROUNDWATER LEVELS:	15.9'		
OTHER OBSERVATIONS:		BOHING NO. : 06SB02	PAGE: 2 OF 3

BORING LOG FOR:

PROJECT NO.:

LOGGED BY:

DRILLED BY (Company/Driller):

GRD. SURFACE ELEVATION:

Polaris Park Family Housing, NSNL, CT

112G02634.FLWI

Robin Clark Eric Watt

GeoSearch / Chris Stamas

BORING NO.:

START DATE:

COMPLETION DATE:

MON. WELL NO.:

CHECKED BY:

06SB03

05/12/2010

05/12/2010

TRANSCRIBED BY:

ELEVATION FROM:

EW

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MFT./ CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
0										
1										
2							Drilled through to 14', then collected first sample			
3										
4										
5										
6										
7										
8										
9										
10							Drilled through to 14', then collected first sample			
11										
12										
13										
14	8	16 / 24	1615			Brown	Wet, fine to medium, moderately sorted sand with trace blocky granite and angular gravel	SW		51.6
15	11									
	10									
	16									

TYPE OF DRILLING RIG:

METHOD OF ADVANCING BORING:

METHOD OF SOIL SAMPLING:

METHOD OF ROCK CORING:

GROUNDWATER LEVELS:

OTHER OBSERVATIONS:


4 1/4 inch hollow stem auger

2 in split spoon

NA

14'

Tetra Tech NUS, Inc.



BORING NO.:

06SB03

PAGE:

1

OF

2

BORING LOG FOR:

Polaris Park Family Housing, NSNL, CT

06SB03

PROJECT NO.:

112G02634.FI.WI

05/12/2010

LOGGED BY:

Robin Clark Eric Watt

DRILLED BY (Company/Driller):

GeoSearch / Chris Stamas

COMPLETION. DATE:

0107171100

GRD. SURFACE ELEVATION:

EVALUATION FROM:

CHECKED BY:

[illegible]

TYPE OF DRILLING RIG:

METHOD OF ADVANCING BORING:

METHOD OF SOIL SAMPLING:

METHODOF ROCK CORING

METHOD OF ROCK CORING
GROUNDWATER LEVELS

GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

4 1/4 inch hollow stem auger

4 $\frac{1}{4}$ inch hollow
2 in split spoon

NA

 $\frac{NA}{1A}$

Tetra Tech NUS, Inc.



BORING NO.: 06SB03

PAGE: 2 OF 2

TtNUS Form 0018

BORING LOG FOR:

Polaris Park Family Housing, NSNL, CT

PROJECT NO.:

112G02634.F1.W1

LOGGED BY:

Robin Clark Eric Watt

DRILLED BY (Company/Driller):

GeoSearch / Chris Stamas

GRD. SURFACE ELEVATION:

TRANSCRIBED BY: EW

ELEVATION FROM:

BORING NO.:

06SB04

START DATE:

05/19/2010

COMPLETION DATE:

05/19/2010

MON. WELL NO.:

CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MFT'L CHG./ WELL PROFL	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
5										
6										
7										
8										
10	9	16 / 24	1440			Light brown	Drilled through to 10', then collected first sample	SW		0.0
11	22									
12	34									
13	38									
14	7	17 / 24	1505 Lab Sample			Brown	0-10" similar to above 10" - 17" Moist, fine, moderately sorted sand with little subangular gravel, ~1/4 inch	SW		0.7
15	24									
16	11									
17	13									
18	4	13 / 24	1520			Brown	Similar to 10" - 17" above	SW		0.0
19	15									
20	17									
21	19	13 / 24	1525 Lab Sample			Brown	Wet, fine, moderately sorted sand with little blocky granite	SW		0.0
22	25									
23	22						End of boring			
24										
25										
26										
27										
28										
29										
30										

TYPE OF DRILLING RIG:

METHOD OF ADVANCING BORING:

METHOD OF SOIL SAMPLING:

METHOD OF ROCK CORING:

GROUNDWATER LEVELS:

OTHER OBSERVATIONS:

4 1/4 inch hollow stem auger to 5' 4 in. air hammer/roller bit 5' - 16'

2 in split spoon

NA

Borehole collapsed at 14' prior to removing augers

Tetra Tech NUS, Inc.



BORING NO.:

06SB04

PAGE:

1

OF

1

TINUS Form 0018

Polaris Park Family Housing, NSNL, CT

PROJECT NO.:

112G02634.FI.WI

LOGGED BY:

Robin Clark Eric Watt

DRILLED BY (Company/Driller):

GeoSearch / Chris Stamas

GRD. SURFACE ELEVATION:

[illegible]

BORING NO.:

06SB05

START DATE:

05/19/2010

COMPLETION: DATE:

TRANSCRIBED BY: EW

MON. WELL NO.:

[illegible]

TYPE OF DRILLING RIG:

METHOD OF ADVANCING BORING:

METHOD OF SOIL SAMPLING:

METHOD OF ROCK CORING:

GROUNDWATER LEVELS:

OTHER OBSERVATIONS:

4 1/4 inch hollow stem auger 0-10' on 5/19/10: Air hammer 10' - 12' on 5/20/10

2 in split spoon

NA

15'

Tetra Tech NUS, Inc.



BORING NO.: 06SB05

PAGE: 1 OF 1

TTtNUS Form 0018

BORING LOG FOR: Polaris Park Family Housing, NSNL, CT
 PROJECT NO.: 112G02634.F1.W1
 LOGGED BY: Robin Clark Eric Watt
 DRILLED BY (Company/Driller): GeoSearch / Chris Stamas
 GRD. SURFACE ELEVATION: _____

BORING NO.: 06SB06
 START DATE: 05/13/2010
 COMPLETION DATE: 05/13/2010
 MON. WELL NO.: _____
 CHECKED BY: _____

TRANSCRIBED BY: _____
 ELEVATION FROM: _____

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MATH CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering, etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
5							Drilled through to 15.5', then collected sample			
6										
7										
8										
10										
11										
12							Drilled through to 15.5', then collected sample			
13										
14										
15										
16	21									
17	22	18 / 24	1610			Grey	Wet, fine to coarse, poorly sorted sand, with trace blocky granite, and little subangular gravel	SW		235
18	19									
19	32						Drilled through to 22', then collected sample			

TYPE OF DRILLING RIG: _____

METHOD OF ADVANCING BORING: 4 1/4 inch hollow stem auger to 14'; 4 inch air hammer to 22'


METHOD OF SOIL SAMPLING: 2 in split spoon

METHOD OF ROCK CORING: NA

GROUNDWATER LEVELS: 13.5'

OTHER OBSERVATIONS: _____

Tetra Tech NUS, Inc.



BORING NO.: 06SB06 PAGE: 1 OF 2

TNUS Form 0018

BORING LOG FOR:
PROJECT NO.:
LOGGED BY:
DRILLED BY (Company):
GRD. SURFACE ELEVATION:

Polaris Park Family Housing, NSNL, CT
112G02634.FI.WI
Robin Clark Eric Watt
GeoSearch / Chris Stamas

BORING NO.: _____
 START DATE: _____
 COMPLETION DATE: _____
 MON. WELL NO.: _____
 CHECKED BY: _____
 ELEVATION FROM: _____
 TRANSCRIBED BY: _____

06SB06
05/13/20
05/13/20

[illegible]

TYPE OF DRILLING RIG:

METHOD OF ADVANCING BORING:

METHOD OF SOIL SAMPLING:

METHOD OF ROCK CORING

GROUNDWATER LEVELS:

4 1/4 inch hollow stem auger to 14'. 4 inch air hammer to 22'.

2 in split spoon

NA

135'

Tetra Tech NUS, Inc.



BORING NO.: 06SB06


PAGE: 2 OF 2

TtNUS Form 0018

BORING LOG FOR: Polaris Park Family Housing, NSNL, CT
 PROJECT NO.: 112G02634.F1.W1
 LOGGED BY: Robin Clark Eric Watt
 DRILLED BY (Company/Driller): GeoSearch / Chris Stamas
 GRD. SURFACE ELEVATION: _____
 BORING NO.: 06SB07
 START DATE: 05/14/2010
 COMPLETION DATE: 05/14/2010
 TRANSCRIBED BY: EW
 MON. WELL NO.: _____
 CHECKED BY: _____
 ELEVATION FROM: _____

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MFT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
5										
6										
7										
8										
10										
11										
12	3	12 / 24	0825 Lab Sample							
13	15									
14	18	18 / 24	0830 Lab Sample							
15	29									
16	22									
17	15									
18	18	5 / 24	0840							
19	12									
20	10									
21	10									
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
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34										
35										
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41										
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87										
88										
89										
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										

TYPE OF DRILLING RIG: _____
 METHOD OF ADVANCING BORING: 4 1/4 inch hollow stem auger to 10', 4 inch air hammer 10' - 16'
 METHOD OF SOIL SAMPLING: 2 in split spoon
 METHOD OF ROCK CORING: NA
 GROUNDWATER LEVELS: _____
 OTHER OBSERVATIONS: _____

Tetra Tech NUS, Inc.


BORING NO.: 06SB07
 PAGE: 1 OF 1
 TNUS Form 0018

BORING LOG FOR:

Polaris Park Family Housing, NSNL, CT

BORING NO.: 06SB08

PROJECT NO.:

112G02634.FI.WI

START DATE: 05/14/2010

LOGGED BY:

Robin Clark Eric Watt

TRANSCRIBED BY: FW

DRILLED BY (Company/Driller):

GeoSearch / Chris Stamas

CONV. LEASING: DATE: _____
MON. WELL NO.: _____

GRD. SURFACE ELEVATION:

ELEVATION FROM:

CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MFT'L CHG/ WELL PROFL	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
0										
1										
2										
3										
4										
5							Drilled through to 10', then collected sample			
6										
7										
8										
9										
10	4									
	60 / 3"	5 / 9	0940			Orange	Wet, medium to coarse sand with little subangular gravel, trace blocky granite	SW	Rock in trap prevented recovery. 60 blows over 3"	0.0
11										
12	18					Brown/ orange	Wet, medium to coarse, poorly sorted sand, with platy granite, trace subangular gravel	SW		0.0
13	36	17 / 24	1000							
	32		Lab Sample							
14	32									
	8									
15	33	16 / 18	1015			Brown/ grey	Wet, fine to coarse, poorly sorted sand, with some platy and blocky granite	SW		
	65 / 3"		Lab Sample				End of boring			

TYPE OF DRILLING RIG:

METHOD OF ADVANCING BORING:

METHOD OF SOIL SAMPLING:

METHOD OF ROCK CORIN

GROUNDWATER LEVELS:

4 1/4 inch hollow stem auger 0 - 5' 4 inch air hammer 5' - 14.5'

2 in split spoon

NA

$$\frac{10'}{10'}$$

Tetra Tech NUS, Inc.



BORING NO.: 06SB08

PAGE: 1 OF 1

BORING LOG FOR: Polaris Park Family Housing, NSNL, CT
 PROJECT NO.: 112G02634.F1.W1
 LOGGED BY: Robin Clark Eric Watt
 DRILLED BY (Company/Driller): GeoSearch / Chris Stamas
 GRD. SURFACE ELEVATION: _____

BORING NO.: 06SB09
 START DATE: 05/14/2010
 COMPLETION DATE: 05/14/2010
 MON. WELL NO.: 06MW02

TRANSCRIBED BY: EW
 ELEVATION FROM: _____

CHECKED BY: _____

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
0										
1										
2										
3										
4										
5	13									
6	10	16 / 24	1100			Brown	0 - 7" Dry, medium to coarse, poorly sorted sand with blocky granite and little subangular gravel	SW	Slight petroleum odor	544
7	11					Grey	7" - 16" Dry, silty to fine sand with little blocky granite			
8	12									
9										
10	2									
11	4	4 / 24	1125			Grey	Wet, silt to sandy silt	SP		35
12	5									
13	6									
14	8	24 / 24	1130			Grey	0 - 18" Wet, silty to fine sand	SP	Strong petroleum odor	1,380
15	9					Grey	18" - 20" Wet, medium to coarse sand	SP		
16	12					Grey	20" - 24" Wet, fine to medium, poorly sorted sand	SP		
17	19					Grey	Wet, fine to coarse, poorly sorted sand, with little subangular to subrounded gravel and little blocky granite and feldspar	SW	Strong petroleum odor	1,270
18	11	24 / 24	1145							
19	27									
20	33									
21	39									

TYPE OF DRILLING RIG: _____

METHOD OF ADVANCING BORING: 4 1/4 inch hollow stem auger 0 - 5', 15' - 18' 4 inch air hammer 5' - 15'

METHOD OF SOIL SAMPLING: 2 in split spoon

METHOD OF ROCK CORING: NA

GROUNDWATER LEVELS: 11.5'

OTHER OBSERVATIONS: _____

Tetra Tech NUS, Inc.

Tt

BORING NO.: 06SB09 PAGE: 1 OF 2

TINUS Form 0018

BORING LOG FOR:

PROJECT NO.:

LOGGED BY:

DRILLED BY (Company/Driller):

GRD. SURFACE ELEVATION:

Polaris Park Family Housing, NSNL, CT

112G02634.FI.WI

Robin Clark	Eric Watt
-------------	-----------

GeoSearch / Chris Stamas

BORING NO.:

START DATE:

COMPLETION: DATE:

MON. WELL NO.:

CHECKED BY:

06SB09

05/14/2010

05/14/2010

06MW02

ELEVATION FROM:
CHECKED BY:
MON. WHEEL IN:

TRANSCRIBED BY: EW

ELEVATION FROM:

[illegible]

TYPE OF DRILLING RIG:

METHOD OF ADVANCING BORING:

METHOD OF SOIL SAMPLING:

METHOD OF ROCK CORING

GROUNDWATER LEVELS:

4 1/4 inch hollow stem auger 0 - 5' 15' - 18' 4 inch air hammer 5' - 15'

4 7/8 inch hollow
2 in split spoon

 $\frac{1}{2}Z$

11.5'

Tetra Tech NUS, Inc.



BORING NO.: 06SB09

PAGE: 2 OF 2

TINUS Form 0018

BORING LOG FOR:

Polaris Park Family Housing, NSNL, CT

BORING NO.

PROJECT NO.:

112G02634.FI.WI

05/20/2010

LOGGED BY:

Robin Clark Eric M

COMPLETION DATE:

DRILLED BY (Company/Driller):

GeoSearch / Chris Stamas

10

0107107100

GRD. SURFACE ELEVATION:

ELEVATION FROM:

CHECKED BY: ..

[illegible]

TYPE OF DRILLING RIG:

METHOD OF ADVANCING BORING: 4 1/4 inch hollow stem auger to 10'

METHOD OF SOIL SAMPLING:

METHOD OF ROCK CORING:

GROUNDWATER LEVELS:

Tetra Tech NUS, Inc.



BORING NO.: 06SB10

PAGE: 1 OF 1

BORING LOG FOR:

PROJECT NO.:

LOGGED BY:

DRILLED BY (Company/Driller):

GRD. SURFACE ELEVATION:

Polaris Park Family Housing, NSNL, CT

112G02634.FIWI

Robin Clark Eric Watt

GeoSearch / Chris Stamas

BORING NO.:

START DATE.

COMPLETION DATE: _____

COMPLETION: DATE: _____
MONITOR WELL NO.: _____

MON: WALTER
CHECKED BY:

TRANSCRIBED BY: FW

ELEVATION FROM:

065B11

05/14/2010

05/14/2010

[illegible]

TYPE OF DRILLING RIG:

METHOD OF ADVANCING BORING:

METHOD OF SOIL SAMPLING:

METHOD OF ROCK CORING:

METHOD OF ROCK CORING

4 1/4 inch hollow stem auger 0 - 5', 4 inch air hammer 5' - 12',

4 1/4 inch hollow
2 in split spoon

NA
2 in

10' NA

Tetra Tech NUS, Inc.



BORING NO.: 06SB11

PAGE: 1 OF 1

BORING LOG FOR:

PROJECT NO.:

LOGGED BY:

DRILLED BY (Company/Driller):

GRD. SURFACE ELEVATION:

Polaris Park Family Housing, NSNL, CT

112G02634.F1.WI

Robin Clark Eric Watt

GeoSearch / Chris Stamas

BORING NO.:

START DATE:

COMPLETION DATE:

MON. WELL NO.:

CHECKED BY:

TRANSCRIBED BY: EW

ELEVATION FROM:

06SB12

05/17/2010

05/17/2010

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MATT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
0										
1										
2										
3							Drilled through to 10', then collected sample			
4										
5										
6										
7										
8							Drilled through to 10', then collected sample			
9										
10	4	13 / 24	0915			Light	Moist, fine to coarse sand with some subrounded to subangular gravel up to 1.25"			
11	15					brown		SW		0.0
12	21									
13	22									
14	24	20 / 24	0920			Brown	0 - 4" Wet, medium to coarse sand and gravel			
15	14		Lab Sample			Brown	4" - 8" Wet, very fine sand			1.6
	10						8" - 10" Wet, platy gravel and subangular gravel			
	19						10" - 20" Wet, medium sand			
14	54	24 / 24	0926			Brown	0 - 15" Wet, medium, moderately sorted sand	SW		0.9
15	44		Lab Sample			Brown	15" - 24" Medium to coarse, poorly sorted sand, with little subangular gravel End of boring			
	48									
	21									

TYPE OF DRILLING RIG:

METHOD OF ADVANCING BORING:

METHOD OF SOIL SAMPLING:

METHOD OF ROCK CORING:

GROUNDWATER LEVELS:

OTHER OBSERVATIONS:

4 1/4 inch hollow stem auger 0 - 4' 4 inch air hammer 4' - 14'

2 in split spoon

NA

11.5'

Tetra Tech NUS, Inc.



BORING NO.: 06SB12

PAGE: 1

OF 1

TNUS Form 0018

BORING LOG FOR: Polaris Park Family Housing, NSNL, CT
 PROJECT NO.: 112G02634.F1.W1
 LOGGED BY: Robin Clark Eric Watt
 DRILLED BY (Company/Driller): GeoSearch / Chris Stamas
 GRD. SURFACE ELEVATION: _____
 BORING NO.: 06SB13
 START DATE: 05/17/2010
 COMPLETION DATE: 05/17/2010
 TRANSCRIBED BY: EW
 MON. WELL NO.: _____
 CHECKED BY: _____
 ELEVATION FROM: _____

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MFT./ CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
0										
1										
2										
3										
4										
5										
6										
7										
8	1	17 / 24	1015			Brown/	Moist to wet, very fine sand with trace subangular medium sand gravel, some	SP		0.1
9	1					Grey				
	3									
	5									
10	5	18 / 24	1027			Brown/	0 - 2" Similar to above.			
	12					Grey	2" - 18" Wet, very fine to coarse, poorly sorted sand, with trace subrounded gravel	SW		0.2
11	14									
	16									
12	49	24 / 24	1033			Brown/	Wet, medium to coarse, moderately sorted sand with little blocky and platy granite	SW		0.6
	34					Light				
	40					grey	End of boring			
13	51									
14										

TYPE OF DRILLING RIG: _____
 METHOD OF ADVANCING BORING: 4 1/4 inch hollow stem auger to 10'
 METHOD OF SOIL SAMPLING: 2 in split spoon
 METHOD OF ROCK CORING: NA
 GROUNDWATER LEVELS: 10'
 OTHER OBSERVATIONS: _____

BORING LOG FOR:

Polaris Park Family Housing, -NSNL, CT

06.SB14

PROJECT NO.:

112G02634.FI.WI

START DATE:

LOGGED BY:

Robin Clark Eric

COMPLETION:

DRILLED BY (Company/Driller):

GeoSearch / Chris Stamas

COMPLETION DATE:
MON WELL NO.:

GRD SURFACE ELEVATION.

[illegible]

CHECKED BY: MON. WELLMAN

[illegible]

TYPE OF DRILLING RIG:

METHOD OF ADVANCING BORING

METHOD OF SOIL SAMPLING:

METHOD OF CORE SAMPLING METHOD OF ROCK CORING

GROUNDWATER LEVELS:

4 1/4 inch hollow stem auger 0 - 16'

2 in split spoon

NA

10'

Tetra Tech NUS, Inc.




BORING NO. 06SB14

PAGE: 1 OF 1

BORING LOG FOR: Polaris Park Family Housing, NSNL, CT
 PROJECT NO.: 112G02634.F1W1
 LOGGED BY: Robin Clark Eric Watt
 DRILLED BY (Company/Driller): GeoSearch / Chris Stamas
 GRD. SURFACE ELEVATION: _____
 BORING NO.: 06SB15
 START DATE: 05/20/2010
 COMPLETION DATE: 05/20/2010
 TRANSCRIBED BY: EW
 MON. WELL NO.: _____
 CHECKED BY: _____
 ELEVATION FROM: _____

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MFT'L CHG./ WELL PROFL	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
1										
2										
3										
4										
5										
6										
7										
8										
9	2	19 / 24	1120			Grey/	0 - 16" Wet, very fine, moderately well sorted sand with little silt	SP	Moderately firm /	0.0
10	4					Brown	16" - 19" Wet, fine to medium, moderately sorted sand	SW	dense	
11	5					Brown	0 - 14" Similar to above	SW		0.0
12	7	18 / 24	1125			Brown	14" - 18" Wet, very fine to fine, moderately sorted sand with little silt	SP		
13	1									
14	3									
15	3									
16	2									
17										
18										
19										
20										
21										
22										
23										
24										
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89										
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										

TYPE OF DRILLING RIG: _____
 METHOD OF ADVANCING BORING: 4 1/4 inch hollow stem auger to 28'
 METHOD OF SOIL SAMPLING: 2 in split spoon
 METHOD OF ROCK CORING: NA
 GROUNDWATER LEVELS: 7.9
 OTHER OBSERVATIONS: _____

Tetra Tech NUS, Inc.


BORING NO.: 06SB15 PAGE: 1 OF 2

TNUS Form 0018

BORING LOG FOR: Polaris Park Family Housing, NSNL, CT
 PROJECT NO.: 112G02634.FLWI
 LOGGED BY: Robin Clark Eric Watt
 DRILLED BY (Company/Driller): GeoSearch / Chris Stamas
 GRD. SURFACE ELEVATION: _____

BORING NO.: 06SB15
 START DATE: 05/20/2010
 COMPLETION DATE: 05/20/2010
 MON. WELL NO.: _____
 CHECKED BY: _____

TRANSCRIBED BY: EW
 ELEVATION FROM: _____

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MFT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
17	14	21/24	No sample				Wet, fine to coarse, poorly sorted, well graded, sand with little subangular gravel (<0.25")	SW		N/A*
18	15									
19							Drilled through to 20', then collected sample			
20										
21	7	24 / 24	No sample				Similar to above, except 16" - 24" has some platy and blocky granite	SW		N/A*
22	36									
	52									
	38									
23										
24							Drilled through to 28', then collected sample			
25										
26										
27										
28										
29	42	10 / 10	No sample				Moderately moist, medium to coarse sand with gravel (~25%), with some crushed and platy granite	SW		N/A*
	64 / 4"									
30							Dark Brown			
							End of boring			

TYPE OF DRILLING RIG: _____

METHOD OF ADVANCING BORING: 4 1/4 inch hollow stem auger to 28'


METHOD OF SOIL SAMPLING: 2 in split spoon

METHOD OF ROCK CORING: NA

GROUNDWATER LEVELS: 7.9

OTHER OBSERVATIONS: *N/A - No screening data because no sample collected

Tetra Tech NUS, Inc.



BORING NO.: 06SB15 PAGE: 2 OF 2

TINUS Form 0018

Polaris Park Family Housing, NSNL, CT

112G02634.FI.WI

Robin Clark Eric Watt

GeoSearch / Chris Starn

GRD. SURFACE ELEVATION:

BORING NO.:

START DATE:

COMPLETION: DATE:

MON. WELL NO.:

CHECKED BY:

TRANSCRIBED BY: EW

ELEVATION FROM:

06SB16

05/17/2010

05/18/2010

06MW05

[illegible]

TYPE OF DRILLING RIG:

METHOD OF ADVANCING BORING:

METHOD OF SOIL SAMPLING:

**METHOD OF ROCK CORIN
GROUNDWATER LEVELS:**

OTHER OBSERVATIONS:

4 1/4 inch hollow stem auger

2 in split spoon

NA

19.6' first encounter, 14' at end of boring on 05/17; 9.8' the next morning, 5/18, 8.34' after well construction

Drilled through to 20', then collected first sample

Tetra Tech NUS, Inc.



BORING NO.: 06SB16


PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR: Polaris Park Family Housing, NSNL, CT
 PROJECT NO.: 112G02634.F1.W1
 LOGGED BY: Robin Clark Eric Watt
 DRILLED BY (Company/Driller): GeoSearch / Chris Stamas
 GRD. SURFACE ELEVATION: _____
 BORING NO.: 06SB17
 START DATE: 05/18/2010
 COMPLETION DATE: 05/18/2010
 TRANSCRIBED BY: EW
 MON. WELL NO.: _____
 CHECKED BY: _____
 ELEVATION FROM: _____

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROFL	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
1										
2										
3										
4										
5										
6										
7										
8										
9	2	17 / 24	1005			Brown	Drilled through to 8', then collected sample			
10	15									
	19									
	27									
11	23	21 / 24	1015			Brown	Wet, fine to medium, poorly sorted sand with little subangular gravel	SW		
	49									
	55					Black	0 - 8" Similar to above	SW		
12	67						8" - 21" Wet, fine, dense/firm sand with crushed granite from 16" - 21"			
							End of boring			
13										
14										
15										

TYPE OF DRILLING RIG: _____
 METHOD OF ADVANCING BORING: 4 1/4 inch hollow stem auger
 METHOD OF SOIL SAMPLING: 2 in split spoon
 METHOD OF ROCK CORING: NA
 GROUNDWATER LEVELS: _____
 OTHER OBSERVATIONS: _____

Tetra Tech NUS, Inc.


BORING NO.: 06SB17 PAGE: 1 OF 1
 TINUS Form 0018

BORING LOG FOR:

Polaris Park Family Housing, NSNL, CT

BORING NO.: 06SB18

PROJECT NO.:

112G02634.FI.WI

112G02634.FI.WI

START DATE: 05/18/2010

LOGGED BY:

Robin Clark Eric Watt

TRANSCRIBED BY: EW

COMPLETION DATE:

DRILLED BY (Company/Driller):

GeoSearch / Chris Stamas

MON. WELL NO.:

GRD. SURFACE ELEVATION:

ELEVATION FROM:

[illegible]

TYPE OF DRILLING RIG:

METHOD OF ADVANCING BORING:

METHOD OF SOIL SAMPLING:

METHOD OF ROCK CORING:

GROUNDWATER LEVELS:

OTHER OBSERVATIONS:

4 1/4 inch hollow stem auger 0 – 7', 4-inch air hammer 7' – 28'

2 in split spoon

NA
2 III

17' and rising at 1545 after drilling

OTHER OBSERVATIONS:

Tetra Tech NUS, Inc.



BORING NO.: 06SB18

PAGE: 1 OF 2

BORING LOG FOR:

Polaris Park Family Housing, NSNL, CT

BORING NO.: 06SB18

PROJECT NO.:

112G02634.FI.WI

START DATE: 05/18/2010

LOGGED BY:

Robin Clark Eric Watt

TRANSCRIBED BY: EW
COMPLETION DATE: _____
START DATE: _____

DRILLED BY (Company/Driller):

GeoSearch / Chris Stamas

COMPLETION DATE: 03/16/2010

MON. WELL NO.:

GRD. SURFACE ELEVATION:

ELEVATION FROM:

[illegible]

TYPE OF DRILLING RIG:

METHOD OF ADVANCING BORING:

METHOD OF SOIL SAMPLING:

METHOD OF ROCK CORING

GROUNDWATER LEVELS:

17 and rising at 1043 after climbing

4 1/4 inch hollow stem auger 0 - 7', 4-inch air hammer 7' - 28'

2 in split spoon

NA

2 III

17,

Tetra Tech NUS, Inc.



BORING NO.: 06SB18

PAGE: 2 OF 2

Polaris Park Family Housing, NSNL, CT

PROJECT NO.:

112G02634.F1.WI

LOGGED BY:

Robin Clark Eric Watt

DRILLED BY (Company/Driller):

GeoSearch / Chris Stamas

GRD. SURFACE ELEVATION:

Abstract

BORING NO.:

06SB19

START DATE:

05/19/2010

COMPLETION: DATE:

05/19/2010

MON. WELL NO.:

06MW04

CHECKED BY:

TRANSCRIBED BY: EW

ELEVATION FROM:

[illegible]

TYPE OF DRILLING RIG:

METHOD OF ADVANCING BORING:

METHOD OF SOIL SAMPLING:

METHOD OF ROCK CORING:

GROUNDWATER LEVELS:

OTHER OBSERVATIONS:

4 1/4 inch hollow stem auger to 8' for boring, Re-locate and auger to 13' for monitoring well

2 in split spoon

NA

2.5' in boring. 2.67' after well construction

Tetra Tech NUS, Inc.



BORING NO.: 06SB19

PAGE: 1 OF 1

TtNUS Form 0018

Polaris Park Family Housing, NSNL, CT

PROJECT NO.:

112G02634.FI.WI

LOGGED BY:

Robin Clark Eric Watt

DRILLED BY (Company/Driller):

GeoSearch / Chris Stamas

GRD. SURFACE ELEVATION:

EVALUATION FROM:

[illegible]

THE UNIVERSITY OF CHICAGO

BORING NO.:

06SB20

START DATE:

05/19/2010

COMPLETION: DATE:

05/19/2010

MON. WELL NO.:

0
1
2
3
4
5
6
7
8
9

CHECKED BY:

10

[illegible]

TYPE OF DRILLING RIG:

METHOD OF ADVANCING BORING:

METHOD OF SOIL SAMPLING:

METHOD OF ROCK CORING:

GROUNDWATER LEVELS:

4 1/4 inch hollow stem auger

2 in split spoon

NA

Less than 1' below grade

Tetra Tech NUS, Inc.



BORING NO.: 06SB20

PAGE: 1 OF 1

TINUS Form 0018

APPENDIX B

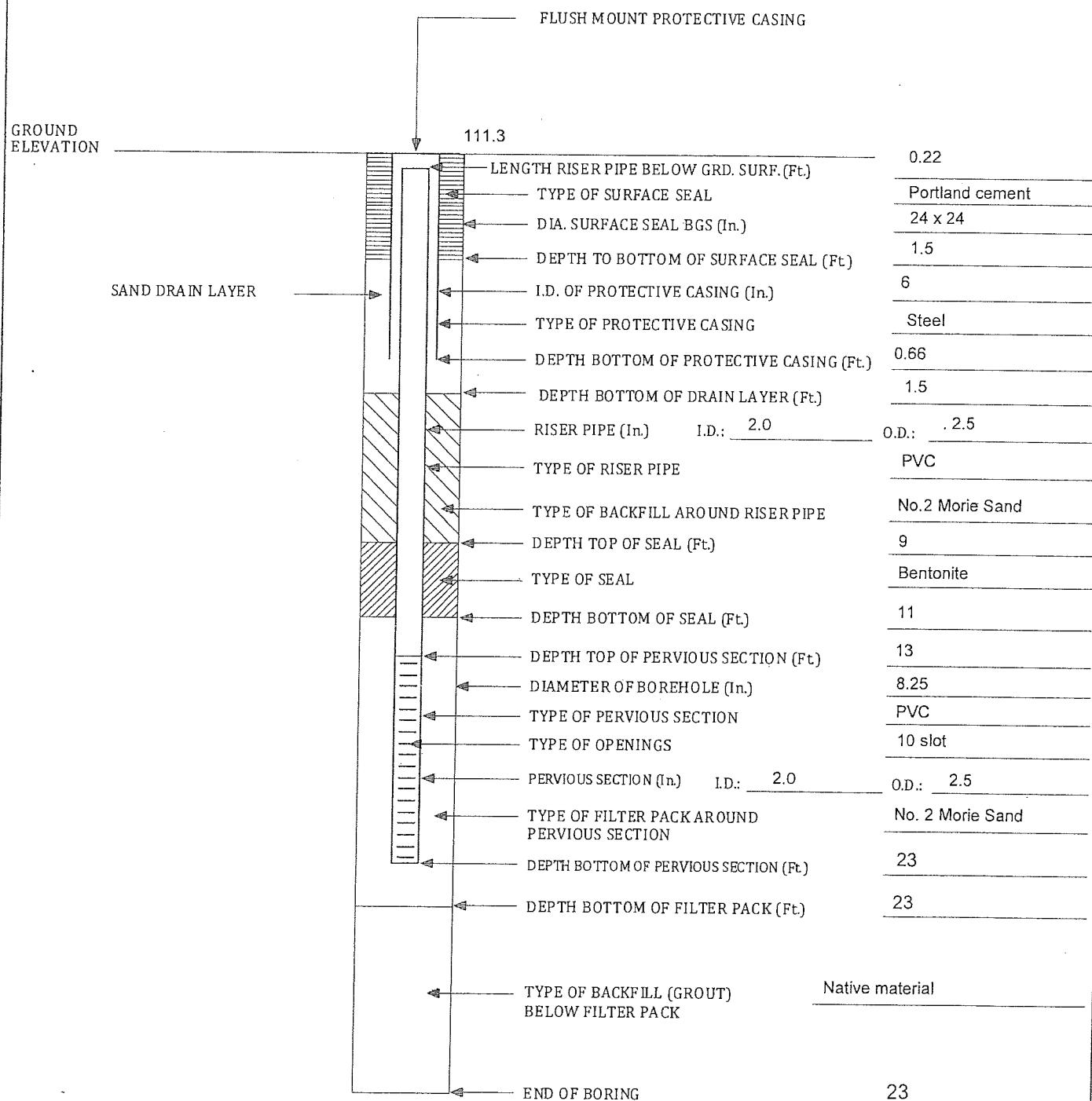
Well Construction Logs

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH

PROJECT NAME	Site 06 Investigation	PROJECT NO:	112G02634
PROJECT LOCATION:	Polaris Park Family Housing, New London, CT	WELL NO:	06MW-01
CLIENT:	Naval Facilities Engineering Command Mid-Atlantic	BORING NO:	06SB-01
CONTRACTOR:	Geosearch	DRILLER	Chris Stamas
LOGGED BY:	Eric Watt	DATE:	May 21, 2010
CHECKED BY:	Dave Kane	DATE	May 27, 2010
		BORING LOCATION:	North end of USS Andrew Jackson Drive

PAGE 1 OF 1



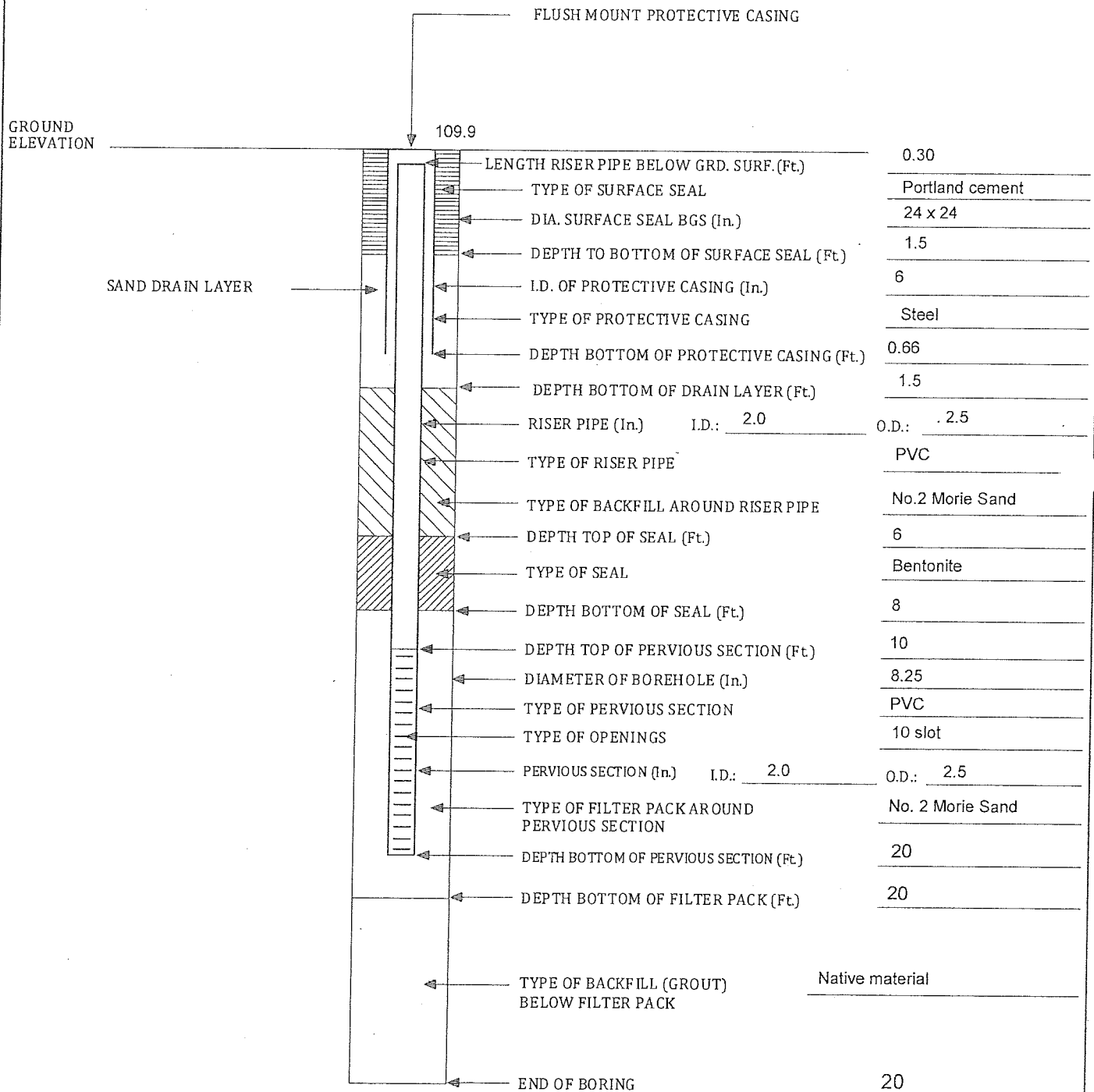
GENERAL NOTE:

1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH

PROJECT NAME	Site 06 Investigation	PROJECT NO:	112G02634
PROJECT LOCATION:	Polaris Park Family Housing, New London, CT	WELL NO:	06MW-02
CLIENT:	Naval Facilities Engineering Command Mid-Atlantic	BORING NO:	06SB-09
CONTRACTOR:	Geosearch	DRILLER	Chris Stamas
LOGGED BY:	Eric Watt	DATE:	May 20, 2010
CHECKED BY:	Dave Kane	DATE	May 27, 2010
		BORING LOCATION:	Open field near the center of USS Andrew Jackson Drive
			PAGE 1 OF 1



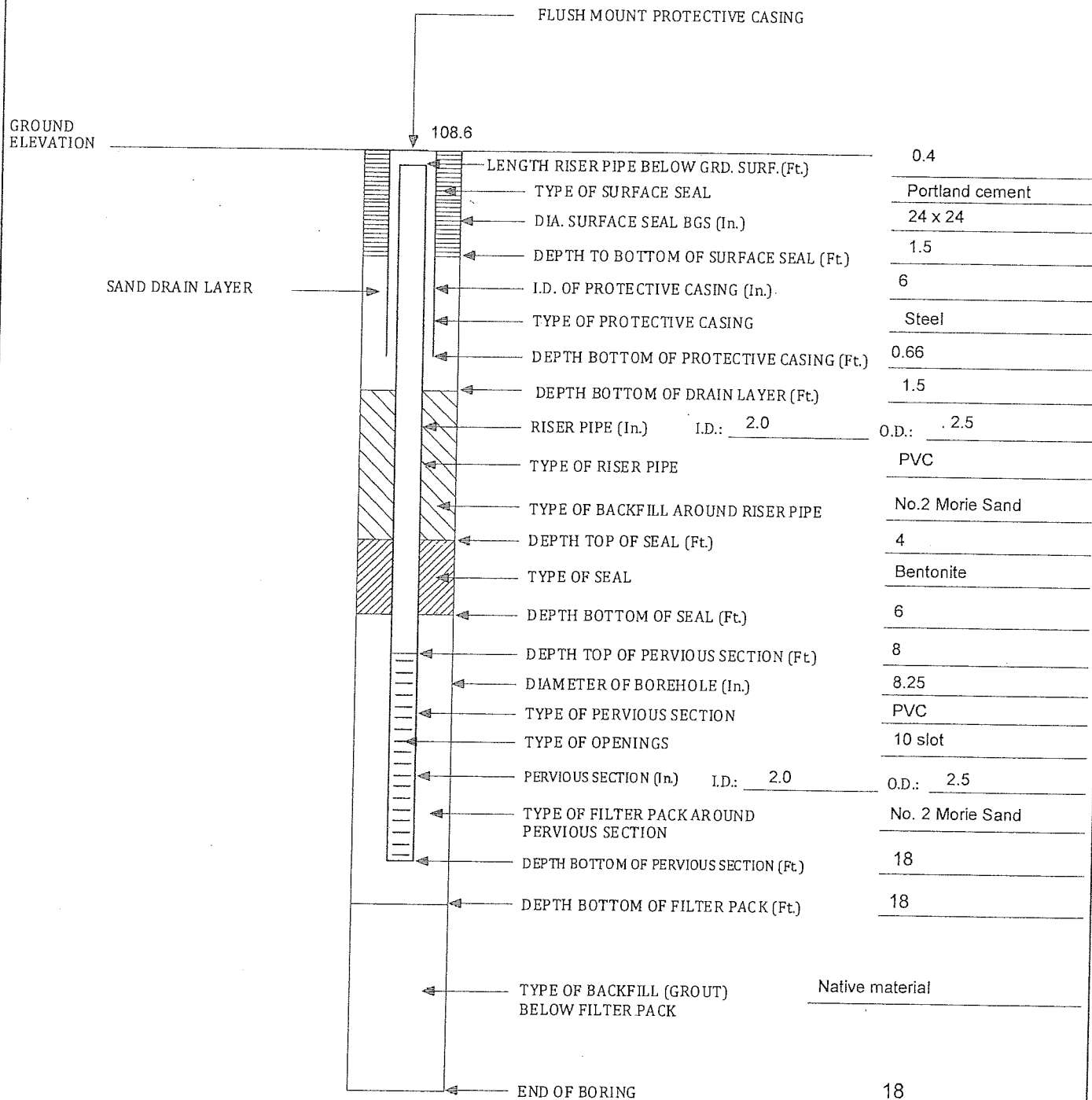
GENERAL NOTE:

1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH

PROJECT NAME	Site 06 Investigation	PROJECT NO:	112G02634
PROJECT LOCATION:	Polaris Park Family Housing, New London, CT	WELL NO:	06MW-03
CLIENT:	Naval Facilities Engineering Command Mid-Atlantic	BORING NO:	06SB-14
CONTRACTOR:	Geosearch	DRILLER	Chris Stamas
LOGGED BY:	Eric Watt	DATE:	May 21, 2010
CHECKED BY:	Dave Kane	DATE	May 27, 2010
		BORING LOCATION:	Near the corner of USS Andrew Jackson Drive & Lafayette Drive
PAGE 1 OF 1			



GENERAL NOTE:

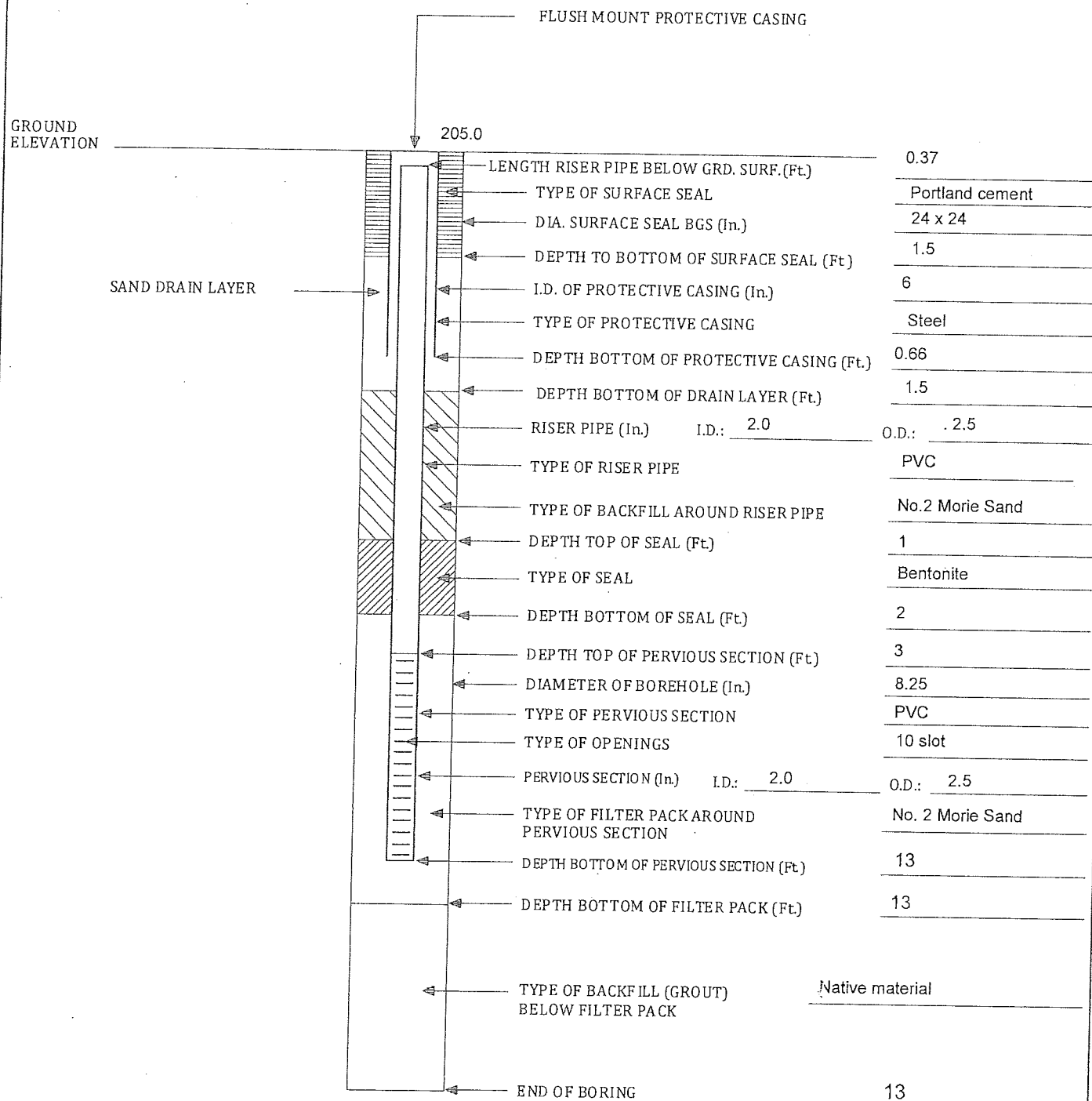
1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH

PROJECT NAME	Site 06 Investigation	PROJECT NO:	112G02634
PROJECT LOCATION:	Polaris Park Family Housing, New London, CT	WELL NO:	06MW-04
CLIENT:	Naval Facilities Engineering Command Mid-Atlantic	BORING NO:	06SB-19
CONTRACTOR:	Geosearch	DRILLER	Chris Stamas
LOGGED BY:	Eric Watt	DATE:	May 18, 2010
CHECKED BY:	Dave Kane	DATE	May 27, 2010
		BORING LOCATION:	Top of Lafayette Drive

PAGE 1 OF 1



GENERAL NOTE:

1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

FLUSH MOUNT MONITORING WELL CONSTRUCTION LOG

TETRA TECH

PROJECT NAME Site 06 Investigation

PROJECT NO: 112G02634

PROJECT LOCATION: Polaris Park Family Housing, New London, CT

WELL NO: 06MW-05

CLIENT: Naval Facilities Engineering Command Mid-Atlantic

BORING NO: 06SB-16

CONTRACTOR: Geosearch

DRILLER: Chris Stamas

BORING LOCATION:

LOGGED BY: Eric Watt

DATE: May 18, 2010

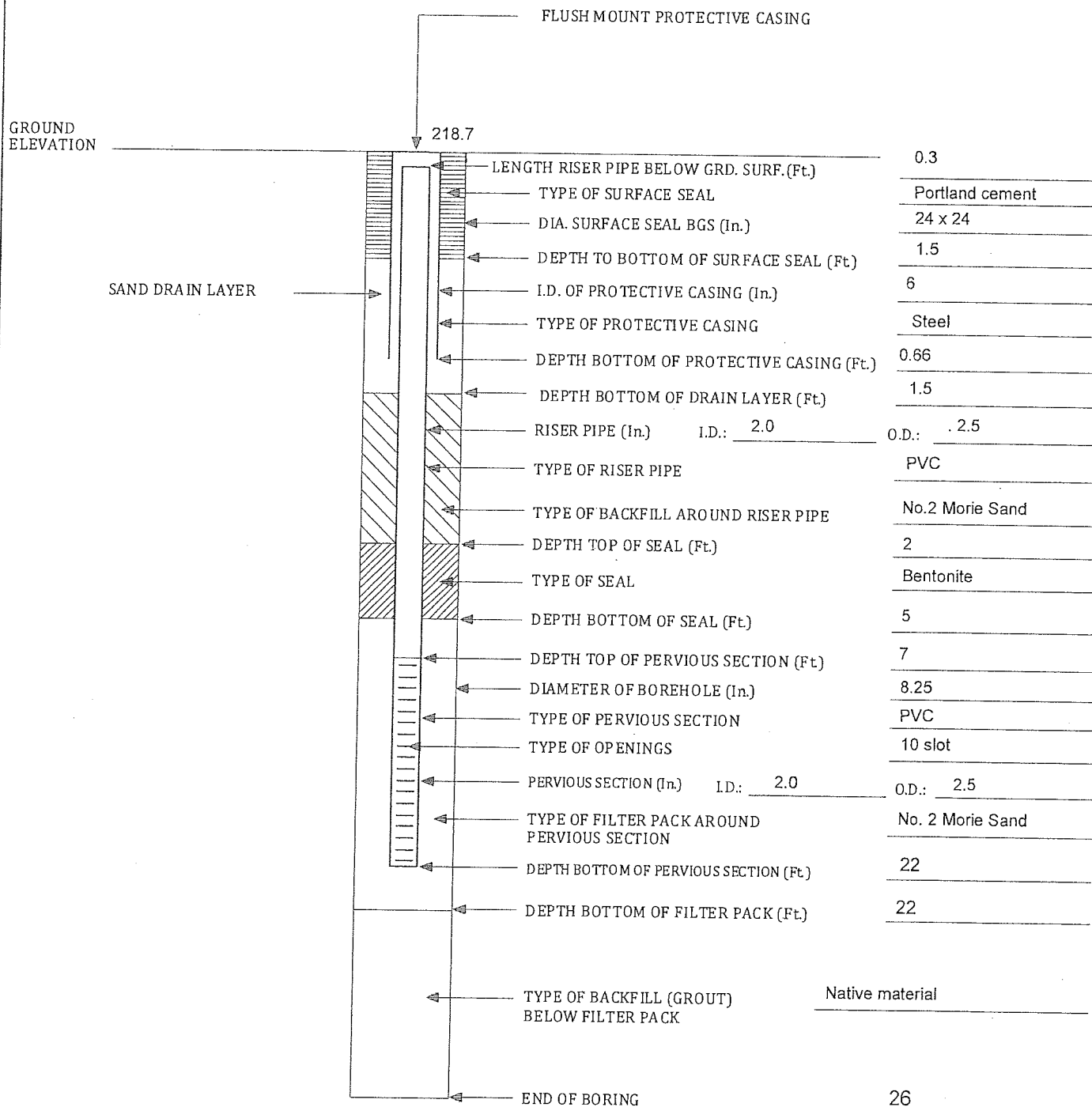
Top of Lafayette Drive

CHECKED BY: Dave Kane

DATE: May 27, 2010

West of former tank area

PAGE 1 OF 1

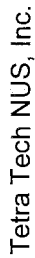


GENERAL NOTE:

1. Entry of 0.00 for Ground Elevation Indicates that Surveyed Ground Elevation is NOT Available.

APPENDIX C

Well Development Logs



MONITORING WELL DEVELOPMENT RECORD

Well: 06MW01 Depth to Bottom (ft.): 22.4 Responsible Personnel: Eric Watt

Site: Site 06 Static Water Level Before (ft.): 13.89 Drilling Co.: GeoSearch

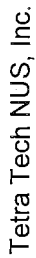
Date Installed: 05/21/2010 Static Water Level After (ft.): 13.95 Project Name: Polaris Park Family Housing, NSNL, Groton, CT

Date Developed: 05/24/2010 Screen Length (ft.): 10 Project Number: 112G02634.FI.WI

Dev. Method: Surge Specific Capacity: N/A

Pump Type: Whale Casing ID (in.): 2

[illegible]



MONITORING WELL DEVELOPMENT RECORD

Well: 06MW02 Depth to Bottom (ft.): 19.3 Responsible Personnel: Eric Watt

Site: Site 06 Static Water Level Before (ft.): 11.47 Drilling Co.: GeoSearch

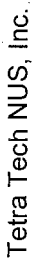
Date Installed: 05/20/2010 Static Water Level After (ft.): 11.49 Project Name: Polaris Park Family Housing, NSNL, Groton, CT

Date Developed: 05/24/2010 Screen Length (ft.): 10 Project Number: 112G02634.FI.WI

Dev. Method: Surge Specific Capacity: N/A

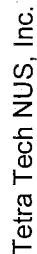
Pump Type: Whale Casing ID (in.): 2

[illegible]



Page 1 of 1

Responsible Personnel: Eric Watt[illegible]



MONITORING WELL DEVELOPMENT RECORD

Well: 06MW04 Depth to Bottom (ft.): 12.77 Responsible Personnel: Robin Clark

Site: Site 06 Static Water Level Before (ft.): 2.08 Drilling Co.: GeoSearch

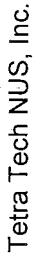
Date Installed: 05/19/2010 Static Water Level After (ft.): 12.7 Project Name: Polaris Park Family Housing, NSNL, Groton, CT

Date Developed: 05/21/2010 Screen Length (ft.): 10 Project Number: 112G02634.FI.WI

Dev. Method: Surge Specific Capacity: N/A

Pump Type: Whale Casing ID (in.): 2

[illegible]



Page 1 of 1

Well: 06MMW05 Depth to Bottom (ft.): 21.5 Responsible Personnel: Robin Clark
 Site: Site 06 Static Water Level Before (ft.): 15.15 Drilling Co.: GeoSearch
 Date Installed: 05/18/2010 Static Water Level After (ft.): ~18 Project Name: Polaris Park Family Housing, NSNL, Groton, CT
 Date Developed: 05/21/2010 Screen Length (ft.): 10 Project Number: 112G02634.FI.WI
 Dev. Method: Surge Specific Capacity: N/A
 Pump Type: Whale Casing ID (in.): 2

[illegible]

APPENDIX D

Groundwater Sample Logs

Tetra Tech, Inc
Well Sampling Log - Low Flow Procedure

Site Name: Polaris Park NSB		Project No. 112G02634.FI.WS		Sheet: 1 of 1	
Well Designation: 06MW01		Start time: 0832			
Date: 06-15-2010		Sample Designation: 06MW01-20100615			
Analysis: VPH, ETPH		Sample Time: 0940			
Sampler: E. Watt		QA/QC Sample: N/A		QA/QC Time: N/A	
Initial depth to water: 14.90		Original Total Well Depth(ft) 22.4		Top of Screen(ft) 12.4	
Depth to water after filling tubing: 15.26		Measured Total Well Depth(ft) 22.4		Bottom of Screen(ft) 22.4	

Parameter Stability:

Conductivity	+/- 3%	ORP	+/- 10 mV	pH	+/- .1	Drawdown after filling tubing .2	
Temperature	+/- 3%	DO	+/- 10%	NTU	+/- 10%		

Time	Purge Rate	Depth to Water (ft)	Drawdown (ft)	Temp. °C	Conductivity (µSiemens)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Description of Water
0	200	15.26	0.00	13.52	213.0	0.67	6.37	33	54.15	clear & colorless
5	200	15.26	0.00	13.08	214.1	0.01	6.38	17	44.47	clear & colorless
10	200	15.22	-0.04	12.87	214.2	0.03	6.38	8	83.51	clear & colorless
15	200	15.21	-0.05	12.74	215.9	0.02	6.39	-3	65.50	clear & colorless
20	200	15.26	0.00	12.72	217.5	0.00	6.41	-18	51.42	clear & colorless
25	200	15.28	0.02	12.60	219.8	0.00	6.42	-51	38.71	clear & colorless
30	200	15.30	0.04	12.55	221.6	0.00	6.44	-75	22.98	clear & colorless
35	200	15.30	0.04	12.56	223.0	0.00	6.45	-98	13.14	clear & colorless
40	200	15.30	0.04	12.51	221.4	0.00	6.44	-116	9.72	clear & colorless
45	200	15.30	0.04	12.59	222.1	0.00	6.45	-144	5.89	clear & colorless
50	200	15.30	0.04	12.68	221.6	0.00	6.43	-158	5.03	clear & colorless
55	200	15.30	0.04	12.64	221.3	0.00	6.43	-177	4.30	clear & colorless
60	200	15.30	0.04	12.65	220.8	0.00	6.43	-190	3.87	clear & colorless
65										
70										
75										
80										
85										
90										
95										
100										

General Notes: Petroleum-like odor observed in water and sheen observed in purge water. ORP was continuously dropping >10 mV; stopped purging after 1 hour.

Well Condition

Overall condition of protective casing and surrounding area	Good
Evidence of sedimentation or well obstruction	No
Condition of inner casing and cap	Good
Condition of well pad	Good
Condition of well lock	N/A

Well Notes/Recommendations:

Site Name: Polaris Park NSB			Project No. 112G02634.FI.WS			Sheet: 1 of 1				
Well Designation: 06MW02			Start time: 1010							
Date: 06-15-2010			Sample Designation: 06MW02-20100615							
Analysis: VPH, ETPH			Sample Time: 1100							
Sampler: E. Watt			QA/QC Sample: MS/MSD			QA/QC Time: N/A				
Initial depth to water: 12.33			Original Total Well Depth(ft) 19.3			Top of Screen(ft) 9.3				
Depth to water after filling tubing: 12.36			Measured Total Well Depth(ft) 19.26			Bottom of Screen(ft) 19.3				
Parameter Stability:										
Conductivity +/- 3%		ORP +/- 10 mV	pH +/- .1		Drawdown after filling tubing .2					
Temperature +/- 3%		DO +/- 10%	NTU +/- 10%							
Time	Purge Rate	Depth to Water (ft)	Drawdown (ft)	Temp. °C	Conductivity (µSiemens)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Description of Water
0	350	12.36	0.00	13.30	247.1	0.74	6.05	63	88.2	clear & colorless
5	350	12.36	0.00	12.46	249.8	0.16	6.05	42	51.4	clear & colorless
10	350	12.36	0.00	12.20	266.4	0.08	5.99	36	14.7	clear & colorless
15	350	12.36	0.00	12.21	268.6	0.13	5.98	31	6.7	clear & colorless
20	350	12.36	0.00	12.41	270.1	0.14	5.98	26	4.0	clear & colorless
25	350	12.36	0.00	12.42	270.5	0.16	5.98	19	2.4	clear & colorless
30	350	12.36	0.00	12.54	270.9	0.17	5.98	8	3.1	clear & colorless
35	350	12.36	0.00	12.53	269.9	0.19	5.98	-6	1.8	clear & colorless
40	350	12.36	0.00	12.51	273.7	0.19	5.97	-25	1.4	clear & colorless
45	350	12.36	0.00	12.69	272.8	0.20	5.98	-43	0.9	clear & colorless
50										
55										
60										
65										
70										
75										
80										
85										
90										
95										
100										
General Notes: Petroleum-like odor observed in water and sheen observed in purge water. ORP was continuously dropping >10 mV; stopped purging after 45 minutes.										
Well Condition										
Overall condition of protective casing and surrounding area			Good							
Evidence of sedimentation or well obstruction			No							
Condition of inner casing and cap			Good							
Condition of well pad			Good							
Condition of well lock			N/A							
Well Notes/Recommendations:										

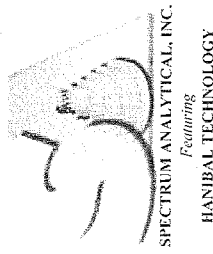
Site Name: Polaris Park NSB			Project No. 112G02634.FI.WS			Sheet: 1 of 1				
Well Designation: 06MW03			Start time: 1136							
Date: 06-15-2010			Sample Designation: 06MW03-20100615							
Analysis: VPH, ETPH			Sample Time: 1225							
Sampler: E. Watt			QA/QC Sample: N/A			QA/QC Time: N/A				
Initial depth to water: 10.65			Original Total Well Depth(ft) 17.52			Top of Screen(ft) 7.5				
Depth to water after filling tubing: 10.69			Measured Total Well Depth(ft) 17.49			Bottom of Screen(ft) 17.5				
Parameter Stability:										
Conductivity +/- 3%		ORP +/- 10 mV	pH +/- .1		Drawdown after filling tubing .2					
Temperature +/- 3%		DO +/- 10%	NTU +/- 10%							
Time	Purge Rate	Depth to Water (ft)	Drawdown (ft)	Temp. °C	Conductivity (µSiemens)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Description of Water
0	350	10.69	0.00	13.32	312.4	0.76	6.56	-60	571.4	cloudy & colorless
5	350	10.69	0.00	13.03	301.3	0.01	6.56	-159	55.8	clear & colorless
10	350	10.69	0.00	12.86	296.1	0.00	6.53	-184	8.2	clear & colorless
15	350	10.69	0.00	12.65	292.0	0.00	6.52	-203	3.7	clear & colorless
20	350	10.69	0.00	12.42	287.9	0.00	6.51	-219	3.3	clear & colorless
25	350	10.69	0.00	12.41	283.8	0.00	6.49	-234	5.2	clear & colorless
30	350	10.69	0.00	12.37	281.7	0.00	6.48	-245	2.2	clear & colorless
35	350	10.69	0.00	12.31	278.9	0.00	6.47	-256	1.5	clear & colorless
40	350	10.69	0.00	12.41	278.1	0.00	6.46	-266	1.2	clear & colorless
45	350	10.69	0.00	12.24	276.2	0.00	6.45	-271	1.0	clear & colorless
50										
55										
60										
65										
70										
75										
80										
85										
90										
95										
100										
General Notes: Petroleum-like odor observed in water and sheen observed in purge water. ORP was continuously dropping >10 mV; stopped purging after 45 minutes.										
Well Condition										
Overall condition of protective casing and surrounding area			Good							
Evidence of sedimentation or well obstruction			No							
Condition of inner casing and cap			Good							
Condition of well pad			Good							
Condition of well lock			N/A							
Well Notes/Recommendations:										

Site Name: Polaris Park NSB				Project No. 112G02634.FI.WS				Sheet: 1 of 1			
Well Designation: 06MW04				Start time: 1348							
Date: 06-15-2010				Sample Designation: 06MW04-20100615							
Analysis: VPH, ETPH				Sample Time: 1410							
Sampler: E. Watt				QA/QC Sample: N/A				QA/QC Time: N/A			
Initial depth to water: 2.91				Original Total Well Depth(ft) 12.77				Top of Screen(ft) 2.8			
Depth to water after filling tubing: 3.38				Measured Total Well Depth(ft) 12.84				Bottom of Screen(ft) 12.8			
Parameter Stability:											
Conductivity +/- 3%		ORP +/- 10 mV		pH +/- .1		Drawdown after filling tubing .2					
Temperature +/- 3%		DO +/- 10%		NTU +/- 10%							
Time	Purge Rate	Depth to Water (ft)	Drawdown (ft)	Temp. °C	Conductivity (µSiemens)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Description of Water	
0	110	3.38	0.00	18.04	5019	0.24	12.04	-246	26.5	cloudy & colorless	
5	110	3.35	-0.03	17.55	4993	0.14	12.10	-287	16.3	cloudy & colorless	
10	110	3.36	-0.02	17.36	5001	0.12	12.14	-304	12.5	clear & colorless	
15	110	3.38	0.00	17.38	5021	0.11	12.17	-299	12.2	clear & colorless	
20	110	3.53	0.15	17.53	5027	0.12	12.18	-300	10.3	clear & colorless	
25											
30											
35											
40											
45											
50											
55											
60											
65											
70											
75											
80											
85											
90											
95											
100											
<p>General Notes: No odor or sheen observed in purge water at first; however, a slight sheen was observed when filling amber bottles. Water quality instrument was calibrated before this well for the mid-day calibration and again after to double check pH because of the high readings. pH was 7.04 during re-calibration. A vapor reaction was observed when filling the vials preserved with HCl.</p>											
Well Condition											
Overall condition of protective casing and surrounding area			Good								
Evidence of sedimentation or well obstruction			No								
Condition of inner casing and cap			Good								
Condition of well pad			Good								
Condition of well lock			N/A								
Well Notes/Recommendations:											

Site Name: Polaris Park NSB			Project No. 112G02634.FI.WS			Sheet: 1 of 1				
Well Designation: 06MW05			Start time: 1446							
Date: 06-15-2010			Sample Designation: 06MW05-20100615							
Analysis: VPH, ETPH			Sample Time: 1520							
Sampler: E. Watt			QA/QC Sample: 06MW10 (Duplicate)			QA/QC Time: 1445				
Initial depth to water: 11.03			Original Total Well Depth(ft) 21.5			Top of Screen(ft) 6.5				
Depth to water after filling tubing: 11.17			Measured Total Well Depth(ft) 21.48			Bottom of Screen(ft) 21.5				
Parameter Stability:										
Conductivity +/- 3%		ORP +/- 10 mV	pH +/- .1		Drawdown after filling tubing .2					
Temperature +/- 3%		DO +/- 10%	NTU +/- 10%							
Time	Purge Rate	Depth to Water (ft)	Drawdown (ft)	Temp. °C	Conductivity (µSiemens)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Description of Water
0	140	11.17	0.00	13.35	182.0	8.36	6.03	156	307.0	cloudy & colorless
5	140	11.22	0.05	12.46	157.1	7.99	5.93	78	97.3	clear & colorless
10	140	11.28	0.11	12.33	155.0	8.10	5.93	66	57.9	clear & colorless
15	140	11.31	0.14	12.27	159.5	8.22	5.94	60	33.2	clear & colorless
20	140	11.31	0.14	12.13	154.2	8.17	5.95	57	27.2	clear & colorless
25	140	11.31	0.14	12.11	153.5	8.16	5.94	56	24.8	clear & colorless
30	140	11.31	0.14	12.06	151.3	8.17	5.95	53	21.8	clear & colorless
35										
40										
45										
50										
55										
60										
65										
70										
75										
80										
85										
90										
95										
100										
General Notes: No odor or sheen detected in purge water.										
Well Condition										
Overall condition of protective casing and surrounding area			Good							
Evidence of sedimentation or well obstruction			No							
Condition of inner casing and cap			Good							
Condition of well pad			Good							
Condition of well lock			N/A							
Well Notes/Recommendations:										

APPENDIX E

Sample Chain-of-Custody Forms



CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:

- ☐ Standard TAT - 7 to 10 business days
- ☐ Rush TAT - Date Needed: _____
- ☐ All TATs subject to laboratory approval.
- ☐ Min. 24-hour notification needed for rushes.
- ☐ Samples disposed of after 60 days unless otherwise instructed.

Report To: Dave Kane
240 Continental Dr
Suite 200
Newark DE 19713
Telephone #: 302-283-2251
Project Mgr. _____

Invoice To: _____
P.O. No.: _____ RQN: _____

Project No.: 11261D2634
Site Name: Polaris Park ~~Exxon~~ NSB NL
Location: Groton Ct State: CT
Sampler(s): R Clark E Watt

1=Na₂S₂O₃ 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=Ascorbic Acid 7=CH₃OH
8=NaHSO₄ 9= _____ 10= _____ 11= _____

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
X1= _____ X2= _____ X3= _____

List preservative code below:

Analyses:

Containers:

of VOA Vials # of Amber Glass # of Clear Glass # of Plastic

QA/QC Reporting Notes:
(check as needed)

- ☐ Provide MA DEP MCP CAM Report
- ☐ Provide CT DPH RCP Report
- QA/QC Reporting Level**
- ☐ Standard ☐ No QC
- ☐ Other _____

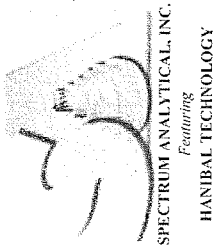
State specific reporting standards: _____

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix
	<u>065B01-05110</u>	<u>5/12/10</u>	<u>1055</u>	<u>G</u>	<u>SD</u>
	<u>065B01-1416</u>	<u>5/12/10</u>	<u>1100</u>	<u>G</u>	<u>SD</u>
	<u>065B01-1618</u>	<u>5/12/10</u>	<u>1430</u>	<u>G</u>	<u>SD</u>
	<u>065B02-1719</u>	<u>5/12/10</u>	<u>1440</u>	<u>G</u>	<u>SD</u>
	<u>065B02-2325</u>	<u>5/12/10</u>	<u>1640</u>	<u>G</u>	<u>SD</u>
	<u>065B03-2224</u>	<u>5/12/10</u>	<u>1615</u>	<u>G</u>	<u>SD</u>
	<u>065B03-1416</u>	<u>5/12/10</u>	<u>1200</u>	<u>G</u>	<u>SD</u>
	<u>065B03-05130</u>	<u>5/12/10</u>	<u>1200</u>	<u>G</u>	<u>SD</u>

Relinquished by: [Signature] Received by: [Signature]
Date: 5/13/10 Time: 11:00 Temp °C: 18
E-mail to: _____

☐ Ambient ☐ Ice ☐ Refrigerated ☐ Fridge temp _____ °C ☐ Freezer temp _____ °C



CHAIN OF CUSTODY RECORD

Page 1 of 4

Special Handling:

- ☒ Standard TAT - 7 to 10 business days
- ☐ Rush TAT - Date Needed: _____
- All TATs subject to laboratory approval.
- Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: DAVE KANE
240 Continental Dr.
Suite 200
Newark DE 19713
Telephone #: 302-283-2251
Project Mgr. _____

Invoice To: _____
P.O. No.: _____ RQN: _____

Project No.: 112602634
Site Name: POLARIS PARK NSB NL
Location: GROTON State: CT
Sampler(s): R. Clark E. Watt

1=Na₂S₂O₃ 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=Ascorbic Acid 7=CH₃OH
8=NaHSO₄ 9=MDH 10=_____ 11=_____

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
X1=_____ X2=_____ X3=_____

List preservative code below:

8,9

Analyses:

Containers:

of VOA Vials

of Amber Glass

of Clear Glass

of Plastic

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix
-065606-1517	5/13/10	16:10	g/c	SD	✓
-065606-2224	5/13/10	17:05	✓	SD	✓
-065607-1214	5/13/10	08:25	✓	SD	✓
-065607-1416	5/14/10	08:30	✓	SD	✓
-065607-1615	5/13/10	0	✓	SD	✓
-065607-1710	5/14/10	08:25	✓	SD	✓
-065608-1214	5/14/10	10:00	✓	SD	✓
-065608-1416	5/14/10	10:15	✓	SD	✓
-065609-1214	5/14/10	11:30	✓	SD	✓
-065609-1416	5/14/10	11:45	✓	SD	✓

Relinquished by: R. Clark

Received by: 11/12

Date: 5/19/10

Time: 10:50

Temp °C: 1.8

☐ EDD Format

☐ E-mail to

QA/QC Reporting Notes:
(check as needed)

- ☐ Provide MA DEP MCP CAM Report
- ☐ Provide CT DPH RCP Report

QA/QC Reporting Level

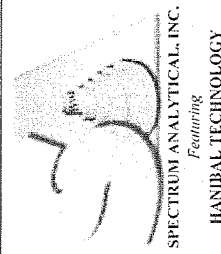
- ☐ Standard
- ☐ No QC
- ☐ Other

State specific reporting standards:

LabQC MS/MSD

WGL PID + 1000 ppm
WGL PID + 1000 ppm

☐ Ambient ☒ Ice ☐ Refrigerated ☐ Fridge temp _____ °C ☐ Freezer temp _____ °C



CHAIN OF CUSTODY RECORD

Page 2 of 4

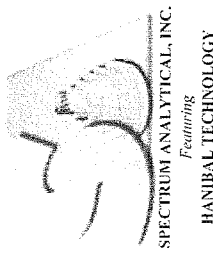
Special Handling:
☒ Standard TAT - 7 to 10 business days
☐ Rush TAT - Date Needed: _____
• All TATs subject to laboratory approval.
• Min. 24-hour notification needed for rushes.
• Samples disposed of after 60 days unless otherwise instructed.

Report To: David Kane
See pg 1 of 4
Telephone #: _____
Project Mgr: _____
Invoice To: _____
P.O. No.: _____ RQN: _____
Project No.: See pg 1 of 4
Site Name: _____ State: _____
Location: _____
Sampler(s): _____

1=Na₂S₂O₃ 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=Ascorbic Acid 7=CH₃OH
8=NaHSO₄ 9=WVDA 10=11
DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
X1= _____ X2= _____ X3= _____

G=Grab C=Composite				Containers:				Analyses:				List preservative code below:				QA/QC Reporting Notes: (check as needed)			
Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic										
-	065011-0810	5/14/10	1400	g/c	SD	3	1												
-	065011-1012	5/14/10	1405			3	1												
-	065012-1214	5/17/10	0920			3	1												
-	065012-1416	5/17/10	0926			3	1												
-	065013-1012	5/17/10	1027			3	1												
-	065013-1214	5/17/10	1033			3	1												
-	065014-0810	5/17/10	1120			3	1												
-	065014-1012	5/17/10	1130			3	1												
-	061950-051910	5/19/10	0700		WB	3													
				<u>Relinquished by: David Kane 5/17/10</u>															
				<u>Received by: [Signature] 5/19/10 1050</u>															

Relinquished by: [Signature]
Received by: [Signature]
Date: 5/19/10 Time: 1050 Temp: 18 °C
EDD Format: _____
E-mail to: _____
QA/QC Reporting Level:
☐ Standard ☐ No QC
☐ Other: _____
State specific reporting standards: _____
Provide MA DEP MCP CAM Report ☐
Provide CT DPH RCP Report ☐
Ambient ☒ Ice ☐ Refrigerated ☐ Fridge temp _____ °C ☐ Freezer temp _____ °C



CHAIN OF CUSTODY RECORD

Page 3 of 4

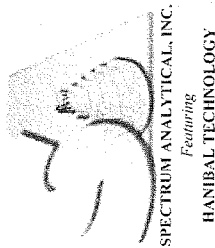
Special Handling:
☒ Standard TAT - 7 to 10 business days
☐ Rush TAT - Date Needed: _____
• All TATs subject to laboratory approval.
• Min. 24-hour notification needed for rushes.
• Samples disposed of after 60 days unless otherwise instructed.

Report To: Paul Kane
See pg 1 of 4
Telephone #: _____
Project Mgr.: _____
Invoice To: _____
Project No.: _____
Site Name: Seely 1074
Location: _____ State: _____
P.O. No.: _____ RQN: _____
Sampler(s): _____

1=Na₂S₂O₃ 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=Ascorbic Acid 7=CH₃OH 11=
8=NaHSO₄ 9=WASH 10=
DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
X1= _____ X2= _____ X3= _____

List preservative code below:				Analyses:			
8.9							
Containers:				Matrix			
# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Type	Time	Date	Temp °C
3	1			31C SD	1018	5/18/10	
3	1			1	1005	5/18/10	
3	1			1	1552	5/17/10	
6	2			1	1615	5/17/10	
				<u>Lab Qc MS used</u>			

Relinquished by: Paul Kane Received by: Paul Kane
Date: 5/19/10 Time: 1050 Temp °C: 1.8
E-mail to: _____
E-mail to: _____
Ambient ☒ Ice ☐ Refrigerated ☐ Fridge temp _____ °C
Freezer temp _____ °C



CHAIN OF CUSTODY RECORD

Page 4 of 4

Special Handling:

- ☒ Standard TAT - 7 to 10 business days
- ☐ Rush TAT - Date Needed: _____
- ☐ All TATs subject to laboratory approval.
- ☐ Min. 24-hour notification needed for rushes.
- ☐ Samples disposed of after 60 days unless otherwise instructed.

Report To: Dave Kane
Seepg 1 of 4
Telephone #: _____
Project Mgr.: _____

Invoice To: _____
P.O. No.: _____ RQN: _____

Project No.: Seepg 1 of 4
Site Name: _____ State: _____
Location: _____
Sampler(s): _____

1=Na₂S₂O₃ 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=Ascorbic Acid 7=CH₃OH
8=NaHSO₄ 9= _____ 10= _____ 11= _____

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
X1= Water X2= _____ X3= _____

List preservative code below:

Containers: 2

of VOA Vials

of Amber Glass

of Clear Glass

of Plastic

Analyses:

QA/QC Reporting Notes:
(check as needed)

- ☐ Provide MA DEP MCP CAM Report
- ☐ Provide CT DPH RCP Report

QA/QC Reporting Level

- ☐ Standard
- ☐ No QC
- ☐ Other _____

State specific reporting standards: _____

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix
	06RB-051810	5/18/10	1550	g	x1
	06TBAQ-051810	5/18/10	1550	g	x1

Dave Kane 5/18/10

Relinquished by:

Received by:

Date:

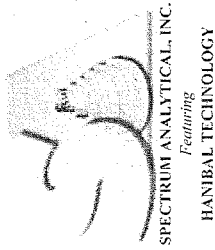
Time:

Temp °C

☐ EDD Format

☐ E-mail to _____

☐ Ambient ☒ Fridge ☐ Refrigerated ☐ Freezer temp _____ °C



CHAIN OF CUSTODY RECORD

Page 1 of 2

Special Handling:

- ☒ Standard TAT - 7 to 10 business days
- ☐ Rush TAT - Date Needed: _____
- All TATs subject to laboratory approval.
- Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: Dave Kanel
240 Continental Drive
Suite 200
Newark DE 19713
Telephone #: 302-283-2251
Project Mgr. _____

Invoice To: _____
P.O. No.: _____
RQN: _____

Project No.: 112602634
Site Name: Polaris Park NSB NL
Location: Groton State: CT
Sampler(s): R Clark, E Watt

1=Na₂SO₃ 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=Ascorbic Acid 7=CH₃OH
8=NaHSO₄ 9=MDH 10= _____ 11= _____

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
X1= _____ X2= _____ X3= _____

List preservative code below:

39

Analyses:

Containers:

of VOA Vials

of Amber Glass

of Clear Glass

of Plastic

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix
	06SB15-0810	5/20/10	1120	g/c	SO
	06SB15-1012	5/20/10	1125		
	06SB05-1416	5/19/10	0740		
	06SB05-1618	5/19/10	0755		
	06SB20-0103	5/19/10	0910		
	06SB20-0406	5/19/10	0925		
	06SB10-0610	5/20/10	0945		
	06SB10-1214	5/20/10	0955		
	06SB0102	5/20/10	0200		
	06B50-D52110	5/21/10	0700	lab	AR

Relinquished by: D. Kanel

Received by: T. Bender

Date: 5/21/10

Time: 1100

Temp °C: 3.4

☐ EDD Format _____

☐ E-mail to _____

QA/QC Reporting Notes:
(check as needed)

- ☐ Provide MA DEP MCP CAM Report
- ☐ Provide CT DPH RCP Report

QA/QC Reporting Level

- ☐ Standard ☐ No QC
- ☐ Other _____

State specific reporting standards: _____

☐ Ambient ☒ Ice ☐ Refrigerated ☐ Fridge temp _____ °C ☐ Freezer temp _____ °C



Page 2 of 2

Special Handling:

☐ Standard TAT - 7 to 10 business days

☐ Rush TAT - Date Needed:

- All TATs subject to laboratory approval
- Min. 24-hour notification needed for rush
- Samples disposed of after 60 days unless otherwise instructed.

Invoice To: _____

P.O. No.: _____ R.O.N.: _____

Project No.: 12602634
Site Name: Seep 1 of 2
Location: State:
Sampler(s):

RQ1:

QA/QC Reporting Notes:
(check as needed)

List preservative code below:

11=arbic Acid 7=CH₃OH

1= Na_2SO_3 2= HCl 3= H_2SO_4 4= HNO_3 5= NaOH
8= NaHSO_4 9=~~NaOH~~ 10=

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW= Surface Water SO= Soil SL=Sludge A=Air
X1= X2= X3=

Analyses:

Containers:

SS	9
SS	9

SS

G=Grab, C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix
065B04	1214	5/19/10	1505	g/c	SD
065B04	1618	5/19/10	1525		
065B19	0406	5/19/10	0755		
065B19	0810	5/19/10	0815		
065B18	0810	5/18/10	1401		
065B08	1012	5/18/10	1410		

CHHDS JMD

Relinquished by:

Received by:

Date:

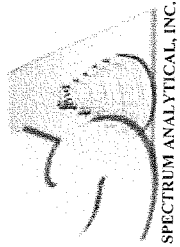
Temp °C	Time	Pressure	Flow	Conc	Yield	Notes
100	10	10	10	10	10	
100	20	10	10	10	10	
100	30	10	10	10	10	
100	40	10	10	10	10	
100	50	10	10	10	10	
100	60	10	10	10	10	
100	70	10	10	10	10	
100	80	10	10	10	10	
100	90	10	10	10	10	
100	100	10	10	10	10	

□ EDD Format

□ E-mail to

☐ Ambient ☒ Ice ☐ Refrigerated ☐ Fridge temp ☐ Freezer temp ☐ °C

11 Almgren Drive • Agawam, MA 01001 • 413-789-9018 • FAX 413-789-4076 • www.spectrum-analytical.com



CHAIN OF CUSTODY RECORD

Page _____ of _____

Special Handling:

- ☒ Standard TAT - 7 to 10 business days
- ☐ Rush TAT - Date Needed: _____
- ☐ All TATs subject to laboratory approval.
- ☐ Min. 24-hour notification needed for rushes.
- ☐ Samples disposed of after 60 days unless otherwise instructed.

Report To: Tetra Tech
240 Commercial Drive, Ste 200
Newark, DE 19713

Telephone #: 302 738-7551

Project Mgr. Dave Kane

Invoice To: _____

P.O. No.: _____

RQN: _____

Project No.: 112602634.FI.WS

Site Name: Site 06 Pokris Park

Location: _____

State: CT

Sampler(s): Eric Watt

1=Na₂SO₃ 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=Ascorbic Acid 7=CH₃OH
8=NaHSO₄ 9= _____ 10= _____ 11= _____

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
X1= _____ X2= _____ X3= _____

List preservative code below:

2

QA/QC Reporting Notes:
(check as needed)

- ☐ Provide MA DEP MCP CAM Report
- ☒ Provide CT DPH RCP Report

QA/QC Reporting Level
☒ Standard ☐ No QC
☐ Other _____

State specific reporting standards: _____

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Containers:	Analyses:	Temp °C	Time:	Date:	Received by:	Relinquished by:
	06MW01-20100615	06-15-10	0940	G	GW	2	2					X				
	06MW02-20100615	06-15-10	1100	G	GW	6	6					X				
	06MW03-20100615	06-15-10	1225	G	GW	2	2					X				
	06MW04-20100615	06-15-10	1410	G	GW	2	2					X				
	06MW05-20100615	06-15-10	1445	G	GW	2	2					X				
	06MW05-20100615	06-15-10	1520	G	GW	2	2					X				
	Tip Blank	06-15-10	0800			2						X				

Sheen present

sheen present

sheen, pH > 12

Relinquished by:

Eric Watt

Received by:

Karl

Time:

9:10

Temp °C

□ EDD Format

☒ E-mail to dave.kane@tetratech.com

□ Ambient ☐ Ice ☐ Refrigerated ☐ Fridge temp _____ °C ☐ Freezer temp _____ °C

APPENDIX F

Laboratory Analytical Data Packages

Report Date:
29-Jun-10 15:55



- ☒ Final Report
☐ Re-Issued Report
☐ Revised Report

A DIVISION OF SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY

Laboratory Report

Tetra Tech NUS Inc.
661 Andersen Drive, Foster Plaza #7
Pittsburgh, PA 15220

Work Order: J0988
Project: CTO-WE56, NSB New London
Project #:

Attn: Tobrena Skeen

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
J0988-01	06SB01-1416	Soil	12-May-10 10:55	13-May-10 11:00
J0988-02	06SB01-1618	Soil	12-May-10 11:00	13-May-10 11:00
J0988-03	06SB02-1719	Soil	12-May-10 14:30	13-May-10 11:00
J0988-04	06SB02-2325	Soil	12-May-10 14:40	13-May-10 11:00
J0988-05	06SBDUP01	Soil	12-May-10 00:00	13-May-10 11:00
J0988-06	06SB03-2224	Soil	12-May-10 16:40	13-May-10 11:00
J0988-07	06SB03-1416	Soil	12-May-10 16:15	13-May-10 11:00
J0988-08	06TBS0-051310	Soil	13-May-10 10:00	13-May-10 11:00
J0988-09	06SB06-1517	Soil	13-May-10 16:10	20-May-10 15:55
J0988-10	06SB06-2224	Soil	13-May-10 17:05	20-May-10 15:55
J0988-11	06SB07-1416	Soil	14-May-10 08:30	20-May-10 15:55
J0988-12	06SB07-1214	Soil	14-May-10 08:25	20-May-10 15:55
J0988-13	06SB08-1214	Soil	14-May-10 10:00	20-May-10 15:55
J0988-14	06SB08-1416	Soil	14-May-10 10:15	20-May-10 15:55
J0988-15	06SB09-1214	Soil	14-May-10 11:30	20-May-10 15:55
J0988-16	06SB09-1416	Soil	14-May-10 11:45	20-May-10 15:55
J0988-17	06SB11-0810	Soil	14-May-10 14:00	20-May-10 15:55
J0988-18	06SB11-1012	Soil	14-May-10 14:05	20-May-10 15:55
J0988-19	06SB12-1214	Soil	17-May-10 09:20	20-May-10 15:55
J0988-20	06SB12-1416	Soil	17-May-10 09:26	20-May-10 15:55
J0988-21	06SB13-1012	Soil	17-May-10 10:27	20-May-10 15:55
J0988-22	06SB13-1214	Soil	17-May-10 10:33	20-May-10 15:55
J0988-23	06SB14-0810	Soil	17-May-10 11:20	20-May-10 15:55
J0988-24	06SB14-1012	Soil	17-May-10 11:30	20-May-10 15:55
J0988-25	06TBSO-051910	Soil	19-May-10 07:00	20-May-10 15:55

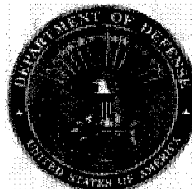
I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. The results relate only to the samples(s) as received.

All applicable NELAC or USEPA CLP requirements have been met.

Mitkem Laboratories is accredited under the National Environmental Laboratory Approval Program (NELAP) and is certified by several States, as well as USEPA and US Department of Defense. The current list of our laboratory approvals and certifications is available on the Certifications page our web site at www.mitkem.com.

Please contact the Laboratory or Technical Director at 401-732-3400 with any questions regarding the data contained in the laboratory report.

Department of Defense	N/A
Connecticut	PH-0153
Delaware	N/A
Maine	2007037
Massachusetts	M-RI907
New Hampshire	2631
New Jersey	RI001
New York	11522
North Carolina	581
Pennsylvania	68-00520
Rhode Island	LAI00301
Texas	T104704422-08-TX
USDA	P330-08-00023
USEPA - ISM	EP-W-09-039
USEPA - SOM	EP-W-05-030



Authorized by:

Yihai Ding
Laboratory Director

Technical Reviewer's Initials:



*** Data Summary Pack ***

Analytical Data Package for Tetra Tech NUS, Inc.

Client Project: CTO-WE56, NSB New London

SDG# SJ0988

Mitkem Workorder ID: J0988

June 29, 2010

Prepared For: Tetra Tech NUS, Inc.
55 Jonspin Road
Wilmington, MA 01887
Attn: Ms. Tobrena Skeen

Prepared By: Mitkem Laboratories
175 Metro Center Boulevard
Warwick, RI 02886
(401) 732-3400

SDG Narrative

Mitkem Laboratories submits the enclosed data package in response to Tetra Tech NUS Inc.'s CTO-WE56, NSB New London project. Under this deliverable, analysis results are presented for twenty-five samples that were received at Mitkem on May 13 and May 20, 2010. Samples were analyzed per instructions in the chain of custody form.

The analyses were performed according to EPA SW-846 methods and reported in CLP-type format for Level 4 deliverable.

The following observation and/or deviations are observed for the following analyses:

1. Overall Observation:

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required. Manual integrations are coded to provide the data reviewer justification for such action. The codes are labeled on the ion chromatogram signal (GC/MS signal) and chromatogram for GC based analysis as follows:

- M1 peak tailing or fronting.
- M2 peak co-elution.
- M3 rising or falling baseline.
- M4 retention time shift.
- M5 miscellaneous – under this category, the justification is explained.
- M6 software did not integrate peak
- M7 partial peak integration

The enclosed report includes the originals of all data with the exception of logbook pages and certain initial calibrations. Photocopies of logbook pages are included, with the originals maintained on file at the laboratory. The originals of initial calibrations that are shared among several cases are maintained on file at the laboratory, with photocopies included in the data package.

2. Volatile Analysis:

Samples were analyzed by SW846 Method 8260.

Surrogate recovery: percent recoveries were within the QC limits with the exception of high recovery of toluene-d8 and bromofluorobenzene in samples 06SB01-1416 and 06SB01-1618, high recovery of bromofluorobenzene in samples 06SB02-2325, 06SB06-1517 and 06SB09-1416 and low recovery of bromofluorobenzene in sample 06SB13-

1214. Samples 06SB01-1416 and 06SB01-1618 were re-analyzed by the medium-level approach with surrogate recoveries within the QC limits.

Laboratory control sample/laboratory control sample duplicate: spike recoveries were within the QC limits with the exception of high recovery of methyl tert-butyl ether in LCSD-51810. Replicate RPDs were within the QC limits.

Matrix spike/matrix spike duplicate: duplicate matrix spikes were performed on sample 06SB06-2224. Spike recoveries were not within the QC limits with the exception of methyl tert-butyl ether in both the matrix spike and matrix spike duplicate. Replicate RPDs were within the QC limits.

Sample analysis: internal standard area counts were within QC criteria with the exception of sample 06SB01-1618. The sample was re-analyzed by the medium level approach with internal standard area counts within QC criteria. Due to the high concentration of target analytes, the following samples were analyzed or re-analyzed by the medium level approach: 06SB01-1416, 06SB01-1618, 06SB09-1214, 06SB14-0810 and 06SB14-1012. All compounds in the initial calibration verification were within 80 – 120% of the initial calibration. No other unusual observation was made for the analysis.

3. CT ETPH Analysis:

The samples were analyzed for extractable Total Petroleum Hydrocarbons by CT ETPH.

Surrogate recovery: spike recoveries were within the QC limits with the exception of low recovery of 5a-androstane in samples 06SB01-1618, 06SB11-1012 and 06SB12-1214, high recovery of ortho-terphenyl in sample 06SB02-1719, low recovery of ortho-terphenyl in sample 06SB06-1517, high recovery of 5a-androstane in samples 06SB09-1214 and 06SB09-1416, low recovery of ortho-terphenyl and 5a-androstane in samples 06SB11-0810, 06SB13-1012, 06SB13-1214 and 06SB06-2224 and lab control sample LCS-51853 and surrogates diluted out in samples 06SB14-0810 and 06SB14-1012.

Lab control sample/lab control sample duplicate: spike recovery and percent RPD were within the QC limits.

Matrix spike/matrix spike duplicate: duplicate matrix spikes were performed on sample 06SB06-2224. Spike recovery was within the QC limits. Percent RPD was not within the QC limits. The matrix spike and matrix spike duplicate were re-extracted and analyzed with spike recovery and percent RPD within the QC limits.

Sample analysis: due to the high concentration of extractable petroleum hydrocarbons, the following samples were analyzed at dilution: 06SB01-1416 (5x), 06SB09-1214 (5x), 06SB09-1416 (5x), 06SB14-0810 (20x) and 06SB14-1012 (20x). The re-extracts for samples 06SB14-0810 and 06SB14-1012 were also analyzed at 20x dilution. Samples

06SB06-1517, 06SB06-2224, 06SB07-1416, 06SB07-1214, 06SB08-1214, 06SB08-1416, 06SB09-1214, 06SB09-1416, 06SB11-0810, 06SB11-1012, 06SB12-1214, 06SB12-1416, 06SB13-1012, 06SB13-1214, 06SB14-0810 and 06SB14-1012 were re-extracted outside of hold time. The initial extraction was performed within hold time, but the associated laboratory control sample had non-compliant surrogate recoveries. The initial calibration verification was within 80 – 120% of the initial calibration. No other unusual occurrences were noted during sample analysis.

5. Total Organic Carbon Analysis:

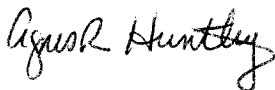
Samples were analyzed for total organic carbon by method Walkley-Black.

Lab control sample: spike recovery was within the QC limits for the lab control samples for total organic carbon.

Sample analysis: no unusual observations were made during sample analyses.

All pages in this report have been numbered, starting with the title page and ending with a page saying only "Last Page of Data Report".

I certify that this data package is in compliance, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.



Agnes Huntley
CLP Project Manager
06/29/10

WorkOrder: J0988**05/21/2010 07:41****Mitkem Laboratories**

Client ID: TETRA_NAVY

Project: CTO-WE56, NSB New London

WO Name: CTO-WE56, NSB New London

Location: CTO-WE56_NSB-NLON,

Comments: HC + 2CDs to Tobrena.

Case:

HC Due: 06/10/10

Report Level: LEVEL 4

SDG:

Fax Due:

Special Program: DoDFax Report: ☐

EDD: TTNUS

PO: WR 8-CTO-WE56, MA1045445, 112G02634

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
J0988-01A	06SB01-1416	05/12/2010 10:55	05/13/2010	Soil	CTETPH_S	/					O3
J0988-01A	06SB01-1416	05/12/2010 10:55	05/13/2010	Soil	PMoist	/					O3
J0988-01B	06SB01-1416	05/12/2010 10:55	05/13/2010	Soil	SW8260_LOW_S	/MBTEX,				Y	VOA
J0988-01C	06SB01-1416	05/12/2010 10:55	05/13/2010	Soil	SW8260_MED_S	/MBTEX		Y	Y	Y	VOA
J0988-02A	06SB01-1618	05/12/2010 11:00	05/13/2010	Soil	CTETPH_S	/					O3
J0988-02A	06SB01-1618	05/12/2010 11:00	05/13/2010	Soil	PMoist	/					O3
J0988-02A	06SB01-1618	05/12/2010 11:00	05/13/2010	Soil	WB_TOC_MGKG_S	/					O3
J0988-02B	06SB01-1618	05/12/2010 11:00	05/13/2010	Soil	SW8260_LOW_S	/MBTEX,				Y	VOA
J0988-02C	06SB01-1618	05/12/2010 11:00	05/13/2010	Soil	SW8260_MED_S	/MBTEX		Y	Y	Y	VOA
J0988-03A	06SB02-1719	05/12/2010 14:30	05/13/2010	Soil	CTETPH_S	/					O3
J0988-03A	06SB02-1719	05/12/2010 14:30	05/13/2010	Soil	PMoist	/					O3
J0988-03B	06SB02-1719	05/12/2010 14:30	05/13/2010	Soil	SW8260_LOW_S	/MBTEX,				Y	VOA
J0988-03C	06SB02-1719	05/12/2010 14:30	05/13/2010	Soil	SW8260_MED_S	/MBTEX		Y	Y	Y	VOA
J0988-04A	06SB02-2325	05/12/2010 14:40	05/13/2010	Soil	CTETPH_S	/					O3
J0988-04A	06SB02-2325	05/12/2010 14:40	05/13/2010	Soil	PMoist	/					O3
J0988-04B	06SB02-2325	05/12/2010 14:40	05/13/2010	Soil	SW8260_LOW_S	/MBTEX,				Y	VOA
J0988-04C	06SB02-2325	05/12/2010 14:40	05/13/2010	Soil	SW8260_MED_S	/MBTEX		Y	Y	Y	VOA
J0988-05A	06SBDUP01	05/12/2010 00:00	05/13/2010	Soil	CTETPH_S	/					O3
J0988-05A	06SBDUP01	05/12/2010 00:00	05/13/2010	Soil	PMoist	/					O3

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

WorkOrder: J0988**05/21/2010 07:41****Mitkem Laboratories****Client ID:** TETRA_NAVY**Project:** CTO-WE56, NSB New London**WO Name:** CTO-WE56, NSB New London**Location:** CTO-WE56_NSB-NLON,**Comments:** HC + 2CDs to Tobrena.**Case:****HC Due:** 06/10/10**Report Level:** LEVEL 4**SDG:****Fax Due:****Special Program:** DoD**Fax Report:** ☐**EDD:** TTINUS**PO:** WR 8-CTO-WE56, MA1045445, 112G02634

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
J0988-05B	06SBDUP01	05/12/2010 00:00	05/13/2010	Soil	SW8260_LOW_S	/ MBTEX,				Y	VOA
J0988-05C	06SBDUP01	05/12/2010 00:00	05/13/2010	Soil	SW8260_MED_S	/ MBTEX		Y	Y	Y	VOA
J0988-06A	06SB03-2224	05/12/2010 16:40	05/13/2010	Soil	CTETPH_S	/					O3
J0988-06A	06SB03-2224	05/12/2010 16:40	05/13/2010	Soil	PMoist	/					O3
J0988-06B	06SB03-2224	05/12/2010 16:40	05/13/2010	Soil	SW8260_LOW_S	/ MBTEX,				Y	VOA
J0988-06C	06SB03-2224	05/12/2010 16:40	05/13/2010	Soil	SW8260_MED_S	/ MBTEX		Y	Y	Y	VOA
J0988-07A	06SB03-1416	05/12/2010 16:15	05/13/2010	Soil	CTETPH_S	/					O3
J0988-07A	06SB03-1416	05/12/2010 16:15	05/13/2010	Soil	PMoist	/					O3
J0988-07B	06SB03-1416	05/12/2010 16:15	05/13/2010	Soil	SW8260_LOW_S	/ MBTEX,				Y	VOA
J0988-07C	06SB03-1416	05/12/2010 16:15	05/13/2010	Soil	SW8260_MED_S	/ MBTEX		Y	Y	Y	VOA
J0988-08A	06TBS0-051310	05/13/2010 10:00	05/13/2010	Soil	SW8260_LOW_S	TB no PMOIST / MBTEX,				Y	VOA
J0988-08B	06TBS0-051310	05/13/2010 10:00	05/13/2010	Soil	SW8260_MED_S	/ MBTEX		Y	Y	Y	VOA
J0988-09A	06SB06-1517	05/13/2010 16:10	05/20/2010	Soil	CTETPH_S	/					O3
J0988-09A	06SB06-1517	05/13/2010 16:10	05/20/2010	Soil	PMoist	/					O3
J0988-09B	06SB06-1517	05/13/2010 16:10	05/20/2010	Soil	SW8260_LOW_S	/ MBTEX,				Y	VOA
J0988-09C	06SB06-1517	05/13/2010 16:10	05/20/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA
J0988-10A	06SB06-2224	05/13/2010 17:05	05/20/2010	Soil	CTETPH_S	/			Y		O3
J0988-10A	06SB06-2224	05/13/2010 17:05	05/20/2010	Soil	PMoist	/			Y		O3
J0988-10B	06SB06-2224	05/13/2010 17:05	05/20/2010	Soil	SW8260_LOW_S	/ MBTEX,			Y	Y	VOA

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

WorkOrder: J0988

05/21/2010 07:41

Mitkem Laboratories

Client ID: TETRA_NAVY

Project: CTO-WE56, NSB New London

WO Name: CTO-WE56, NSB New London

Location: CTO-WE56_NSB-NILON,

Comments: HC + 2CDs to Tobrena.

Case:

SDG:

HC Due: 06/10/10

Fax Due:

Fax Report: ☐

Report Level: LEVEL 4

Special Program: DoD

EDD: TTNUS

PO: WR 8-CTO-WE56, MA1045445, 112G02634

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
J0988-10C	06SB06-2224	05/13/2010 17:05	05/20/2010	Soil	SW8260_MED_S	/MBTEX,	Y	Y	Y	Y	VOA
J0988-11A	06SB07-1416	05/14/2010 08:30	05/20/2010	Soil	CTETPH_S	/					O3
J0988-11A	06SB07-1416	05/14/2010 08:30	05/20/2010	Soil	PMoist	/					O3
J0988-11B	06SB07-1416	05/14/2010 08:30	05/20/2010	Soil	SW8260_LOW_S	/MBTEX,				Y	VOA
J0988-11C	06SB07-1416	05/14/2010 08:30	05/20/2010	Soil	SW8260_MED_S	/MBTEX,	Y	Y	Y	Y	VOA
J0988-12A	06SB07-1214	05/14/2010 08:25	05/20/2010	Soil	CTETPH_S	/					O3
J0988-12A	06SB07-1214	05/14/2010 08:25	05/20/2010	Soil	PMoist	/					O3
J0988-12B	06SB07-1214	05/14/2010 08:25	05/20/2010	Soil	SW8260_LOW_S	/MBTEX,				Y	VOA
J0988-12C	06SB07-1214	05/14/2010 08:25	05/20/2010	Soil	SW8260_MED_S	/MBTEX,	Y	Y	Y	Y	VOA
J0988-13A	06SB08-1214	05/14/2010 10:00	05/20/2010	Soil	CTETPH_S	/					O3
J0988-13A	06SB08-1214	05/14/2010 10:00	05/20/2010	Soil	PMoist	/					O3
J0988-13B	06SB08-1214	05/14/2010 10:00	05/20/2010	Soil	SW8260_LOW_S	/MBTEX,				Y	VOA
J0988-13C	06SB08-1214	05/14/2010 10:00	05/20/2010	Soil	SW8260_MED_S	/MBTEX,	Y	Y	Y	Y	VOA
J0988-14A	06SB08-1416	05/14/2010 10:15	05/20/2010	Soil	CTETPH_S	/					O3
J0988-14A	06SB08-1416	05/14/2010 10:15	05/20/2010	Soil	PMoist	/					O3
J0988-14B	06SB08-1416	05/14/2010 10:15	05/20/2010	Soil	SW8260_LOW_S	/MBTEX,				Y	VOA
J0988-14C	06SB08-1416	05/14/2010 10:15	05/20/2010	Soil	SW8260_MED_S	/MBTEX,	Y	Y	Y	Y	VOA
J0988-15A	06SB09-1214	05/14/2010 11:30	05/20/2010	Soil	CTETPH_S	/					O3
J0988-15A	06SB09-1214	05/14/2010 11:30	05/20/2010	Soil	PMoist	/					O3

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

WorkOrder: J0988**05/21/2010 07:41****Mitekem Laboratories****Client ID:** TETRA_NAVY**Project:** CTO-WE56, NSB New London**WO Name:** CTO-WE56, NSB New London**Location:** CTO-WE56_NSB-NILON,**Comments:** HC + 2CDs to Tobrena.**Case:****SDG:****HC Due:** 06/10/10**Fax Due:****Fax Report:** ☐**Report Level:** LEVEL 4**Special Program:** DoD**EDD:** TTNU5**PO:** WR 8-CTO-WE56, MA1045445, 112G02634

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
J0988-15A	06SB09-1214	05/14/2010 11:30	05/20/2010	Soil	WB_TOC_MGKG_S	/					O3
J0988-15B	06SB09-1214	05/14/2010 11:30	05/20/2010	Soil	SW8260_LOW_S	/MBTEX,				Y	VOA
J0988-15C	06SB09-1214	05/14/2010 11:30	05/20/2010	Soil	SW8260_MED_S	/MBTEX,		Y	Y	Y	VOA
J0988-16A	06SB09-1416	05/14/2010 11:45	05/20/2010	Soil	CTETPH_S	/					O3
J0988-16A	06SB09-1416	05/14/2010 11:45	05/20/2010	Soil	PMoist	/					O3
J0988-16B	06SB09-1416	05/14/2010 11:45	05/20/2010	Soil	SW8260_LOW_S	/MBTEX,				Y	VOA
J0988-16C	06SB09-1416	05/14/2010 11:45	05/20/2010	Soil	SW8260_MED_S	/MBTEX,		Y	Y	Y	VOA
J0988-17A	06SB11-0810	05/14/2010 14:00	05/20/2010	Soil	CTETPH_S	/					O3
J0988-17A	06SB11-0810	05/14/2010 14:00	05/20/2010	Soil	PMoist	/					O3
J0988-17B	06SB11-0810	05/14/2010 14:00	05/20/2010	Soil	SW8260_LOW_S	/MBTEX,				Y	VOA
J0988-17C	06SB11-0810	05/14/2010 14:00	05/20/2010	Soil	SW8260_MED_S	/MBTEX,		Y	Y	Y	VOA
J0988-18A	06SB11-1012	05/14/2010 14:05	05/20/2010	Soil	CTETPH_S	/					O3
J0988-18A	06SB11-1012	05/14/2010 14:05	05/20/2010	Soil	PMoist	/					O3
J0988-18B	06SB11-1012	05/14/2010 14:05	05/20/2010	Soil	SW8260_LOW_S	/MBTEX,				Y	VOA
J0988-18C	06SB11-1012	05/14/2010 14:05	05/20/2010	Soil	SW8260_MED_S	/MBTEX,		Y	Y	Y	VOA
J0988-19A	06SB12-1214	05/17/2010 09:20	05/20/2010	Soil	CTETPH_S	/					O3
J0988-19A	06SB12-1214	05/17/2010 09:20	05/20/2010	Soil	PMoist	/					O3
J0988-19B	06SB12-1214	05/17/2010 09:20	05/20/2010	Soil	SW8260_LOW_S	/MBTEX,				Y	VOA
J0988-19C	06SB12-1214	05/17/2010 09:20	05/20/2010	Soil	SW8260_MED_S	/MBTEX,		Y	Y	Y	VOA

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

WorkOrder: J0988**05/21/2010 07:41****Mitekem Laboratories****Client ID:** TETRA_NAVY**Project:** CTO-WE56, NSB New London**WO Name:** CTO-WE56, NSB New London**Location:** CTO-WE56_NSB-NLON,**Comments:** HC + 2CDs to Tobrena.**Case:****SDG:****HC Due:** 06/10/10**Fax Due:****Fax Report:** ☐**PO:** WR 8-CTO-WE56, MA1045445, 112G02634**Report Level:** LEVEL 4**Special Program:** DoD**EDD:** TTNUS

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
J0988-20A	06SB12-1416	05/17/2010 09:26	05/20/2010	Soil	CTETPH_S	/					O3
J0988-20A	06SB12-1416	05/17/2010 09:26	05/20/2010	Soil	PMoist	/					O3
J0988-20B	06SB12-1416	05/17/2010 09:26	05/20/2010	Soil	SW8260_LOW_S	/MBTEX,				Y	VOA
J0988-20C	06SB12-1416	05/17/2010 09:26	05/20/2010	Soil	SW8260_MED_S	/MBTEX,		Y	Y	Y	VOA
J0988-21A	06SB13-1012	05/17/2010 10:27	05/20/2010	Soil	CTETPH_S	/					O3
J0988-21A	06SB13-1012	05/17/2010 10:27	05/20/2010	Soil	PMoist	/					O3
J0988-21B	06SB13-1012	05/17/2010 10:27	05/20/2010	Soil	SW8260_LOW_S	/MBTEX,				Y	VOA
J0988-21C	06SB13-1012	05/17/2010 10:27	05/20/2010	Soil	SW8260_MED_S	/MBTEX,		Y	Y	Y	VOA
J0988-22A	06SB13-1214	05/17/2010 10:33	05/20/2010	Soil	CTETPH_S	/					O3
J0988-22A	06SB13-1214	05/17/2010 10:33	05/20/2010	Soil	PMoist	/					O3
J0988-22B	06SB13-1214	05/17/2010 10:33	05/20/2010	Soil	SW8260_LOW_S	/MBTEX,				Y	VOA
J0988-22C	06SB13-1214	05/17/2010 10:33	05/20/2010	Soil	SW8260_MED_S	/MBTEX,		Y	Y	Y	VOA
J0988-23A	06SB14-0810	05/17/2010 11:20	05/20/2010	Soil	CTETPH_S	/					O3
J0988-23A	06SB14-0810	05/17/2010 11:20	05/20/2010	Soil	PMoist	/					O3
J0988-23B	06SB14-0810	05/17/2010 11:20	05/20/2010	Soil	SW8260_LOW_S	/MBTEX,				Y	VOA
J0988-23C	06SB14-0810	05/17/2010 11:20	05/20/2010	Soil	SW8260_MED_S	/MBTEX,		Y	Y	Y	VOA
J0988-24A	06SB14-1012	05/17/2010 11:30	05/20/2010	Soil	CTETPH_S	/					O3
J0988-24A	06SB14-1012	05/17/2010 11:30	05/20/2010	Soil	PMoist	/					O3
J0988-24B	06SB14-1012	05/17/2010 11:30	05/20/2010	Soil	SW8260_LOW_S	/MBTEX,				Y	VOA

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

WorkOrder: J0988

05/21/2010 07:41

Mitkem Laboratories

Client ID: TETRA_NAVY

Project: CTO-WE56, NSB New London

WO Name: CTO-WE56, NSB New London

Location: CTO-WE56_NSB-NLON,

Comments: HC + 2CDs to Tobrena.

Case:

SDG:

HC Due: 06/10/10

Fax Due:

Fax Report: ☐

Report Level: LEVEL 4

Special Program: DoD

EDD: TTNUS

PO: WR 8-CTO-WE56, MA1045445, 112G02634

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
J0988-24C	06SB14-1012	05/17/2010 11:30	05/20/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA
J0988-25A	06TBSO-051910	05/19/2010 07:00	05/20/2010	Soil	SW8260_LOW_S	TB no PMOIST / MBTEX,				Y	VOA
J0988-25B	06TBSO-051910	05/19/2010 07:00	05/20/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA

0010

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

Lab Client Rep: Edward A Lawler

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB01-1416

Lab ID: J0988-01

Project: CTO-WE56, NSB New London

Collection Date: 05/12/10 10:55

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	3200		130	mg/Kg	5	06/18/2010 10:33	51651
Surrogate: ortho-Terphenyl	89.4		50-150	%REC	5	06/18/2010 10:33	51651
Surrogate: 5a-Androstane	70.5		58-115	%REC	5	06/18/2010 10:33	51651

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB01-1618

Lab ID: J0988-02

Project: CTO-WE56, NSB New London

Collection Date: 05/12/10 11:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	630		27	mg/Kg	1	06/17/2010 18:29	51651
Surrogate: ortho-Terphenyl	51.9		50-150	%REC	1	06/17/2010 18:29	51651
Surrogate: 5a-Androstane	36.0	S	58-115	%REC	1	06/17/2010 18:29	51651

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB02-1719

Lab ID: J0988-03

Project: CTO-WE56, NSB New London

Collection Date: 05/12/10 14:30

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	1100		27	mg/Kg	1	06/17/2010 19:11	51651
Surrogate: ortho-Terphenyl	171	S	50-150	%REC	1	06/17/2010 19:11	51651
Surrogate: 5a-Androstane	66.1		58-115	%REC	1	06/17/2010 19:11	51651

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB02-2325

Lab ID: J0988-04

Project: CTO-WE56, NSB New London

Collection Date: 05/12/10 14:40

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	97		28	mg/Kg		1 06/17/2010 19:49	51651
Surrogate: ortho-Terphenyl	62.9		50-150	%REC		1 06/17/2010 19:49	51651
Surrogate: 5a-Androstane	65.1		58-115	%REC		1 06/17/2010 19:49	51651

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SBDUP01

Lab ID: J0988-05

Project: CTO-WE56, NSB New London

Collection Date: 05/12/10 0:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		28	mg/Kg	1	06/17/2010 20:27	51651
Surrogate: ortho-Terphenyl	62.6		50-150	%REC	1	06/17/2010 20:27	51651
Surrogate: 5a-Androstane	66.3		58-115	%REC	1	06/17/2010 20:27	51651

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB03-2224

Lab ID: J0988-06

Project: CTO-WE56, NSB New London

Collection Date: 05/12/10 16:40

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	32		26	mg/Kg	1	06/17/2010 21:06	51651
Surrogate: ortho-Terphenyl	57.4		50-150	%REC	1	06/17/2010 21:06	51651
Surrogate: 5a-Androstane	59.0		58-115	%REC	1	06/17/2010 21:06	51651

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0016

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB03-1416

Lab ID: J0988-07

Project: CTO-WE56, NSB New London

Collection Date: 05/12/10 16:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		27	mg/Kg	1	06/17/2010 21:44	51651
Surrogate: ortho-Terphenyl	74.9		50-150	%REC	1	06/17/2010 21:44	51651
Surrogate: 5a-Androstane	75.2		58-115	%REC	1	06/17/2010 21:44	51651

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB06-1517

Lab ID: J0988-09

Project: CTO-WE56, NSB New London

Collection Date: 05/13/10 16:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	610		27	mg/Kg	1	06/13/2010 13:56	51853
Surrogate: ortho-Terphenyl	49.7	S	50-150	%REC	1	06/13/2010 13:56	51853
Surrogate: 5a-Androstane	60.8		58-115	%REC	1	06/13/2010 13:56	51853

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB06-1517

Lab ID: J0988-09

Project: CTO-WE56, NSB New London

Collection Date: 05/13/10 16:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	530		27	mg/Kg	1	06/23/2010 18:23	52512
Surrogate: ortho-Terphenyl	62.7		50-150	%REC	1	06/23/2010 18:23	52512
Surrogate: 5a-Androstane	69.9		58-115	%REC	1	06/23/2010 18:23	52512

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB06-2224

Lab ID: J0988-10

Project: CTO-WE56, NSB New London

Collection Date: 05/13/10 17:05

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		27	mg/Kg	1	06/23/2010 19:00	52512
Surrogate: ortho-Terphenyl	65.7		50-150	%REC	1	06/23/2010 19:00	52512
Surrogate: 5a-Androstane	65.5		58-115	%REC	1	06/23/2010 19:00	52512

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB06-2224

Lab ID: J0988-10

Project: CTO-WE56, NSB New London

Collection Date: 05/13/10 17:05

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		28	mg/Kg	1	06/13/2010 14:30	51853
Surrogate: ortho-Terphenyl	60.0		50-150	%REC	1	06/13/2010 14:30	51853
Surrogate: 5a-Androstane	64.1		58-115	%REC	1	06/13/2010 14:30	51853

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB07-1416

Project: CTO-WE56, NSB New London

Lab ID: J0988-11

Collection Date: 05/14/10 8:30

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		27	mg/Kg	1	06/23/2010 20:48	52512
Surrogate: ortho-Terphenyl	62.3		50-150	%REC	1	06/23/2010 20:48	52512
Surrogate: 5 α -Androstane	60.8		58-115	%REC	1	06/23/2010 20:48	52512

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB07-1416

Lab ID: J0988-11

Project: CTO-WE56, NSB New London

Collection Date: 05/14/10 8:30

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		28	mg/Kg	1	06/13/2010 16:15	51853
Surrogate: ortho-Terphenyl	65.8		50-150	%REC	1	06/13/2010 16:15	51853
Surrogate: 5a-Androstane	66.2		58-115	%REC	1	06/13/2010 16:15	51853

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0023

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.
Client Sample ID: 06SB07-1214
Lab ID: J0988-12

Project: CTO-WE56, NSB New London
Collection Date: 05/14/10 8:25

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		26	mg/Kg	1	06/13/2010 16:50	51853
Surrogate: ortho-Terphenyl	65.7		50-150	%REC	1	06/13/2010 16:50	51853
Surrogate: 5a-Androstane	68.9		58-115	%REC	1	06/13/2010 16:50	51853

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB07-1214

Lab ID: J0988-12

Project: CTO-WE56, NSB New London

Collection Date: 05/14/10 8:25

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		26	mg/Kg	1	06/23/2010 21:24	52512
Surrogate: ortho-Terphenyl	65.1		50-150	%REC	1	06/23/2010 21:24	52512
Surrogate: 5a-Androstane	65.7		58-115	%REC	1	06/23/2010 21:24	52512

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0025

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB08-1214

Lab ID: J0988-13

Project: CTO-WE56, NSB New London

Collection Date: 05/14/10 10:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		27	mg/Kg	1	06/13/2010 17:25	51853
Surrogate: ortho-Terphenyl	67.8		50-150	%REC	1	06/13/2010 17:25	51853
Surrogate: 5a-Androstane	72.2		58-115	%REC	1	06/13/2010 17:25	51853

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0026

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB08-1214

Lab ID: J0988-13

Project: CTO-WE56, NSB New London

Collection Date: 05/14/10 10:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		28	mg/Kg	1	06/23/2010 22:00	52512
Surrogate: ortho-Terphenyl	87.4		50-150	%REC	1	06/23/2010 22:00	52512
Surrogate: 5a-Androstane	86.4		58-115	%REC	1	06/23/2010 22:00	52512

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB08-1416

Lab ID: J0988-14

Project: CTO-WE56, NSB New London

Collection Date: 05/14/10 10:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	29		27	mg/Kg	1	06/13/2010 18:00	51853
Surrogate: ortho-Terphenyl	69.2		50-150	%REC	1	06/13/2010 18:00	51853
Surrogate: 5a-Androstane	75.6		58-115	%REC	1	06/13/2010 18:00	51853

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0028

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB08-1416

Lab ID: J0988-14

Project: CTO-WE56, NSB New London

Collection Date: 05/14/10 10:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	46		28	mg/Kg	1	06/23/2010 22:36	52512
Surrogate: ortho-Terphenyl	66.4		50-150	%REC	1	06/23/2010 22:36	52512
Surrogate: 5a-Androstane	67.4		58-115	%REC	1	06/23/2010 22:36	52512

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0029

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB09-1214

Lab ID: J0988-15

Project: CTO-WE56, NSB New London

Collection Date: 05/14/10 11:30

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	2600		150	mg/Kg	5	06/24/2010 15:01	52512
Surrogate: ortho-Terphenyl	87.2		50-150	%REC	5	06/24/2010 15:01	52512
Surrogate: 5a-Androstane	118	S	58-115	%REC	5	06/24/2010 15:01	52512

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0030

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB09-1214

Lab ID: J0988-15

Project: CTO-WE56, NSB New London

Collection Date: 05/14/10 11:30

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	1600		30	mg/Kg	1	06/13/2010 19:52	51853
Surrogate: ortho-Terphenyl	59.1		50-150	%REC	1	06/13/2010 19:52	51853
Surrogate: 5a-Androstane	60.1		58-115	%REC	1	06/13/2010 19:52	51853

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0031

Mitkem Laboratories**Date:** 29-Jun-10**Client:** Tetra Tech NUS Inc.**Client Sample ID:** 06SB09-1416**Lab ID:** J0988-16**Project:** CTO-WE56, NSB New London**Collection Date:** 05/14/10 11:45

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	2000		140	mg/Kg	5	06/24/2010 15:40	52512
Surrogate: ortho-Terphenyl	116		50-150	%REC	5	06/24/2010 15:40	52512
Surrogate: 5a-Androstane	136	S	58-115	%REC	5	06/24/2010 15:40	52512

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB09-1416

Lab ID: J0988-16

Project: CTO-WE56, NSB New London

Collection Date: 05/14/10 11:45

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	840		28	mg/Kg	1	06/13/2010 20:27	51853
Surrogate: ortho-Terphenyl	117		50-150	%REC	1	06/13/2010 20:27	51853
Surrogate: 5a-Androstane	58.9		58-115	%REC	1	06/13/2010 20:27	51853

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0033

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB11-0810

Lab ID: J0988-17

Project: CTO-WE56, NSB New London

Collection Date: 05/14/10 14:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		31	mg/Kg	1	06/13/2010 21:02	51853
Surrogate: ortho-Terphenyl	39.3	S	50-150	%REC	1	06/13/2010 21:02	51853
Surrogate: 5a-Androstane	41.3	S	58-115	%REC	1	06/13/2010 21:02	51853

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0034

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB11-0810

Lab ID: J0988-17

Project: CTO-WE56, NSB New London

Collection Date: 05/14/10 14:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		32	mg/Kg		1 06/24/2010 1:37	52512
Surrogate: ortho-Terphenyl	78.8		50-150	%REC		1 06/24/2010 1:37	52512
Surrogate: 5a-Androstane	78.9		58-115	%REC		1 06/24/2010 1:37	52512

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0035

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB11-1012

Lab ID: J0988-18

Project: CTO-WE56, NSB New London

Collection Date: 05/14/10 14:05

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	50		32	mg/Kg	1	06/13/2010 21:37	51853
Surrogate: ortho-Terphenyl	50.3		50-150	%REC	1	06/13/2010 21:37	51853
Surrogate: 5a-Androstane	51.1	S	58-115	%REC	1	06/13/2010 21:37	51853

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories**Date:** 29-Jun-10**Client:** Tetra Tech NUS Inc.**Client Sample ID:** 06SB11-1012**Lab ID:** J0988-18**Project:** CTO-WE56, NSB New London**Collection Date:** 05/14/10 14:05

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		33	mg/Kg	1	06/24/2010 2:13	52512
Surrogate: ortho-Terphenyl	66.1		50-150	%REC	1	06/24/2010 2:13	52512
Surrogate: 5a-Androstane	66.1		58-115	%REC	1	06/24/2010 2:13	52512

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0037

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB12-1214

Lab ID: J0988-19

Project: CTO-WE56, NSB New London

Collection Date: 05/17/10 9:20

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		28	mg/Kg	1	06/13/2010 22:12	51853
Surrogate: ortho-Terphenyl	50.9		50-150	%REC	1	06/13/2010 22:12	51853
Surrogate: 5a-Androstane	53.9	S	58-115	%REC	1	06/13/2010 22:12	51853

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0038

Mitkem Laboratories**Date:** 29-Jun-10**Client:** Tetra Tech NUS Inc.**Client Sample ID:** 06SB12-1214**Lab ID:** J0988-19**Project:** CTO-WE56, NSB New London**Collection Date:** 05/17/10 9:20

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		29	mg/Kg	1	06/24/2010 2:50	52512
Surrogate: ortho-Terphenyl	61.0		50-150	%REC	1	06/24/2010 2:50	52512
Surrogate: 5a-Androstane	60.0		58-115	%REC	1	06/24/2010 2:50	52512

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0039

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB12-1416

Lab ID: J0988-20

Project: CTO-WE56, NSB New London

Collection Date: 05/17/10 9:26

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		28	mg/Kg	1	06/13/2010 22:48	51853
Surrogate: ortho-Terphenyl	64.6		50-150	%REC	1	06/13/2010 22:48	51853
Surrogate: 5a-Androstane	66.4		58-115	%REC	1	06/13/2010 22:48	51853

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB12-1416

Lab ID: J0988-20

Project: CTO-WE56, NSB New London

Collection Date: 05/17/10 9:26

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		28	mg/Kg	1	06/24/2010 3:25	52512
Surrogate: ortho-Terphenyl	78.2		50-150	%REC	1	06/24/2010 3:25	52512
Surrogate: 5a-Androstane	79.6		58-115	%REC	1	06/24/2010 3:25	52512

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0041

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB13-1012

Lab ID: J0988-21

Project: CTO-WE56, NSB New London

Collection Date: 05/17/10 10:27

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		29	mg/Kg	1	06/24/2010 4:02	52512
Surrogate: ortho-Terphenyl	77.3		50-150	%REC	1	06/24/2010 4:02	52512
Surrogate: 5a-Androstane	76.8		58-115	%REC	1	06/24/2010 4:02	52512

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0042

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB13-1012

Lab ID: J0988-21

Project: CTO-WE56, NSB New London

Collection Date: 05/17/10 10:27

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		28	mg/Kg		1 06/13/2010 23:24	51853
Surrogate: ortho-Terphenyl	46.7	S	50-150	%REC		1 06/13/2010 23:24	51853
Surrogate: 5a-Androstane	49.3	S	58-115	%REC		1 06/13/2010 23:24	51853

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0043

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB13-1214

Lab ID: J0988-22

Project: CTO-WE56, NSB New London

Collection Date: 05/17/10 10:33

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		27	mg/Kg		1 06/14/2010 0:00	51853
Surrogate: ortho-Terphenyl	46.0	S	50-150	%REC		1 06/14/2010 0:00	51853
Surrogate: 5a-Androstane	48.3	S	58-115	%REC		1 06/14/2010 0:00	51853

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0044

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB13-1214

Lab ID: J0988-22

Project: CTO-WE56, NSB New London

Collection Date: 05/17/10 10:33

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		27	mg/Kg	1	06/24/2010 4:38	52512
Surrogate: ortho-Terphenyl	74.1		50-150	%REC	1	06/24/2010 4:38	52512
Surrogate: 5a-Androstane	74.0		58-115	%REC	1	06/24/2010 4:38	52512

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0045

Mitkem Laboratories**Date:** 29-Jun-10**Client:** Tetra Tech NUS Inc.**Client Sample ID:** 06SB14-0810**Lab ID:** J0988-23**Project:** CTO-WE56, NSB New London**Collection Date:** 05/17/10 11:20

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	9300		610	mg/Kg		20 06/15/2010 21:15	51853
Surrogate: ortho-Terphenyl	0	S	50-150	%REC		20 06/15/2010 21:15	51853
Surrogate: 5a-Androstane	0	S	58-115	%REC		20 06/15/2010 21:15	51853

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0046

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB14-0810

Lab ID: J0988-23

Project: CTO-WE56, NSB New London

Collection Date: 05/17/10 11:20

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	15000		630	mg/Kg		20 06/24/2010 4:02	52512
Surrogate: ortho-Terphenyl	0	S	50-150	%REC		20 06/24/2010 4:02	52512
Surrogate: 5a-Androstane	0	S	58-115	%REC		20 06/24/2010 4:02	52512

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0047

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB14-1012

Lab ID: J0988-24

Project: CTO-WE56, NSB New London

Collection Date: 05/17/10 11:30

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	9800		610	mg/Kg		20 06/15/2010 21:50	51853
Surrogate: ortho-Terphenyl	0	S	50-150	%REC		20 06/15/2010 21:50	51853
Surrogate: 5a-Androstane	0	S	58-115	%REC		20 06/15/2010 21:50	51853

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0048

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB14-1012

Lab ID: J0988-24

Project: CTO-WE56, NSB New London

Collection Date: 05/17/10 11:30

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	11000		620	mg/Kg	20	06/24/2010 4:38	52512
Surrogate: ortho-Terphenyl	0	S	50-150	%REC	20	06/24/2010 4:38	52512
Surrogate: 5a-Androstane	0	S	58-115	%REC	20	06/24/2010 4:38	52512

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0049

ANALYTICAL QC SUMMARY REPORT

CLIENT: Tetra Tech NUS Inc.

Work Order: J0988

CTETPH_S

Project: CTO-WE56, NSB New London

CT ETPH -- CT ETPH by GC-FID

Sample ID: MB-51651	SampType: MBLK	TestCode: CTETPH_S	Prep Date: 05/19/10 9:30	Run ID: F1_100617B				
Client ID: MB-51651	Batch ID: 51651	Units: mg/Kg	Analysis Date: 06/17/10 16:00	SeqNo: 1319285				
Analyte	Result	MDL	SPK value	SPK Ref Val	%REC LowLimit HighLimit	RPD Ref Val	%RPD RPDLimit	Qual

Sample ID: MB-51853	SampType: MBLK	TestCode: CTETPH_S	Prep Date: 05/27/10 10:00	Run ID: F1_100613A			
Client ID: MB-51853	Batch ID: 51853	Units: mg/Kg	Analysis Date: 06/13/10 12:47	SeqNo: 1318543			
Analyte	Result	MDL	SPK Ref Val	%REC LowLimit HighLimit	RPD Ref Val	%RPD RPDLimit	Qual

Sample ID: MB-52512	SampType: MBLK	TestCode: CTETPH_S	Prep Date: 06/22/10 7:47	Run ID: F1_100623B				
Client ID: MB-52512	Batch ID: 52512	Units: mg/Kg	Analysis Date: 06/23/10 17:10	SeqNo: 1324814				
Analyte	Result	MDL	SPK value	SPK Ref Val	%REC LowLimit HighLimit	RPD Ref Val	%RPD RPDLimit	Qual

Sample ID: LCS-51651										SampType: LCS		TestCode: CTETPH_S		Prep Date: 05/19/10 9:30		Run ID: F1_100617B											
Client ID: LCS-51651										Batch ID: 51651		Units: mg/Kg		Analysis Date: 06/17/10 16:38		SeqNo: 1319286											
Analyte										Result		MDL		SPK value		SPK Ref Val		%REC LowLimit HighLimit		RPD Ref Val		%RPD RPDLimit		Qual			
Extractable Total Petroleum Hydrocarbon										298.3		2.4		24		333.3		0		89.5		60		140		0	
Surrogate: ortho-Terphenyl										2.150		0		1.7		2.666		0		80.7		50		150		0	
Surrogate: 5a-Androstane										2.191		0		1.7		2.666		0		82.2		58		115		0	

0050

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Tetra Tech NUS Inc.

Work Order: J0988

Project: CTO-WE56, NSB New London

ANALYTICAL QC SUMMARY REPORT

CTETPH_S

CT ETPH -- CT ETPH by GC-FID

Sample ID: LCS-51853	SampleType: LCS	TestCode: CTETPH_S		Prep Date: 05/27/10 10:00	Run ID: F1_100613A					
Client ID: LCS-51853	Batch ID: 51853	Units: mg/Kg		Analysis Date: 06/13/10 13:21	SeqNo: 1318544					
Analyte	Result	MDL	PQL	SPK value	SPK Ref Val	%REC LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit	Qual
Extractable Total Petroleum Hydrocarbon	202.2	2.4	24	333.3	0	60.7	60	140	0	
Surrogate: ortho-Terphenyl	1.244	0	1.7	2.666	0	46.7	50	150	0	S
Surrogate: 5a-Androstane	1.390	0	1.7	2.666	0	52.1	58	115	0	S

Sample ID: LCS-52512	SampType: LCS	TestCode: CTETPH_S	Prep Date: 06/22/10 7:47	Run ID: F1_100623B					
Client ID: LCS-52512	Batch ID: 52512	Units: mg/Kg	Analysis Date: 06/23/10 17:47	SeqNo: 1324815					
Analyte	Result	MDL	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit	RPD Ref Val	%RPD RPDLimit	Qual
Extractable Total Petroleum Hydrocarbon	310.4	2.4	24	333.3	0	93.1 60 140	0		
Surrogate: ortho-Terphenyl	2.264	0	1.7	2.666	0	84.9 50 150	0		
Surrogate: 5a-Androstane	2.423	0	1.7	2.666	0	90.9 58 115	0		

Sample ID: LCSD-51651	SampType: LCSD	TestCode: CTETPH_S	Prep Date: 05/19/10 9:30	Run ID: F1_100617B						
Client ID: LCSD-51651	Batch ID: 51651	Units: mg/Kg	Analysis Date: 06/17/10 17:17	SeqNo: 1319287						
Analyte	Result	MDL	PQL	SPK value	SPK Ref Val	%REC LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit	Qual
Extractable Total Petroleum Hydrocarbon	260.2	2.4	24	333.3	0	78.0	60	298.3	13.7	20
Surrogate: ortho-Terphenyl	1.832	0	1.7	2.666	0	68.7	50	0		
Surrogate: 5a-Androstane	1.867	0	1.7	2.666	0	70.0	58	0	0	50

Sample ID: J0988-10AMS	SampType: MS	TestCode: CTETPH_S	Prep Date: 05/27/10 10:00	Run ID: F1_100613A					
Client ID: 06SB06-2224	Batch ID: 51853	Units: mg/Kg	Analysis Date: 06/13/10 15:05	SeqNo: 1318547					
Analyte	Result	MDL	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit	RPD Ref Val	%RPD RPDLimit	Qual
Extractable Total Petroleum Hydrocarbon	190.4	2.6	26	366.1	0	52.0 50 150	0		
Surrogate: ortho-Terphenyl	1.374	0	1.8	2.928	0	46.9 50 150	0		S
Surrogate: 5a-Androstane	1.527	0	1.8	2.928	0	52.2 58 115	0		S

0051

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

m10.06.22.A

CLIENT: Tetra Tech NUS Inc.

Work Order: J0988

Project: CTO-WE56, NSB New London

ANALYTICAL QC SUMMARY REPORT

CTETPH_S

CT ETPH -- CT ETPH by GC-FID

Sample ID: J0988-10AMSRE	SampType: MS	Batch ID: 52512	TestCode: CTETPH_S	Units: mg/Kg	Prep Date: 06/22/10 7:47	Run ID: F1_100623B
Client ID: 06SB06-2224	Result	MDL	PQL	MDL	Analysis Date: 06/23/10 19:36	SeqNo: 1324818
Analyte	Result	MDL	PQL	MDL	SPK Ref Val	SPK value

Extractable Total Petroleum	279.7	2.8	28	383.1	0	73.0	50	150	0	RPD Ref Val	%RPD RPDLimit	Qual
Hydrocarbon												

Surrogate: ortho-Terphenyl	1.958	0	1.9	3.064	0	63.9	50	150	0			
Surrogate: 5a-Androstane	2.050	0	1.9	3.064	0	66.9	58	115	0			

Sample ID: J0988-10AMSD	SampType: MSD	Batch ID: 51853	TestCode: CTETPH_S	Units: mg/Kg	Prep Date: 05/27/10 10:00	Run ID: F1_100613A
Client ID: 06SB06-2224	Result	MDL	PQL	MDL	Analysis Date: 06/13/10 15:40	SeqNo: 1318548
Analyte	Result	MDL	PQL	MDL	SPK Ref Val	SPK value

Extractable Total Petroleum	272.5	2.8	28	383.1	0	71.1	50	150	190.4	35.5	30	R
Hydrocarbon												

Surrogate: ortho-Terphenyl	1.894	0	1.9	3.064	0	61.8	50	150	0			
Surrogate: 5a-Androstane	2.048	0	1.9	3.064	0	66.8	58	115	0	0	30	

Sample ID: J0988-10AMSDRE	SampType: MSD	Batch ID: 52512	TestCode: CTETPH_S	Units: mg/Kg	Prep Date: 06/22/10 7:47	Run ID: F1_100623B
Client ID: 06SB06-2224	Result	MDL	PQL	MDL	Analysis Date: 06/23/10 20:12	SeqNo: 1324819
Analyte	Result	MDL	PQL	MDL	SPK Ref Val	SPK value

Extractable Total Petroleum	299.0	2.7	27	378.1	0	79.1	50	150	279.7	6.65	30	
Hydrocarbon												

Surrogate: ortho-Terphenyl	2.115	0	1.9	3.024	0	69.9	50	150	0			
Surrogate: 5a-Androstane	2.248	0	1.9	3.024	0	74.3	58	115	0	0	30	

0052

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Mitkem Laboratories**Date:** 09-Jun-10**Client:** Tetra Tech NUS Inc.**Client Sample ID:** 06SB01-1618**Lab ID:** J0988-02**Project:** CTO-WE56, NSB New London**Collection Date:** 05/12/10 11:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
Walkley-Black TOC -- Walkley-Black -- Total Organic Carbon							WB_TOC_MGKG_S
Walkley-Black -- Total Organic Carbon	46000		5000	mg/Kg		1 06/08/2010 15:45	52162

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 09-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB09-1214

Lab ID: J0988-15

Project: CTO-WE56, NSB New London

Collection Date: 05/14/10 11:30

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
Walkley-Black TOC -- Walkley-Black -- Total Organic Carbon							WB_TOC_MGKG_S
Walkley-Black -- Total Organic Carbon	47000		4900	mg/Kg		1 06/08/2010 16:05	52162

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0054

Walkley-Black TOC -- Walkley-Black -- Total Organic Carbon

B - Analyte detected in the associated Method Blank

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB01-1416

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
 Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-01B
 Sample wt/vol: 7.70 (g/mL) G Lab File ID: V6H4667.D
 Level: (TRACE/LOW/MED) LOW Date Received: 05/13/2010
 % Moisture: not dec. 10 Date Analyzed: 05/20/2010
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	3.6	U
71-43-2	Benzene	3.6	U
108-88-3	Toluene	2.1	J
100-41-4	Ethylbenzene	120	
1330-20-7	m,p-Xylene	310	E
95-47-6	o-Xylene	170	E
1330-20-7	Xylene (Total)	480	E

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
06SB01-1416ME

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-01C
Sample wt/vol: 8.70 (g/mL) G Lab File ID: V114091.D
Level: (TRACE/LOW/MED) MED Date Received: 05/13/2010
% Moisture: not dec. 10 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)
Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	µG/KG
1634-04-4	Methyl tert-butyl ether	190	U
71-43-2	Benzene	190	U
108-88-3	Toluene	190	U
100-41-4	Ethylbenzene	500	
1330-20-7	m,p-Xylene	1400	
95-47-6	o-Xylene	760	
1330-20-7	Xylene (Total)	2200	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB01-1618

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-02B
Sample wt/vol: 8.10 (g/mL) G Lab File ID: V6H4668.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/13/2010
% Moisture: not dec. 13 Date Analyzed: 05/20/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/KG	
1634-04-4	Methyl tert-butyl ether		3.5	U
71-43-2	Benzene		3.5	U
108-88-3	Toluene		5.5	
100-41-4	Ethylbenzene		320	E
1330-20-7	m,p-Xylene		820	E
95-47-6	o-Xylene		420	E
1330-20-7	Xylene (Total)		1200	E

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
06SB01-1618ME

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-02C
Sample wt/vol: 8.00 (g/mL) G Lab File ID: V1L4092.D
Level: (TRACE/LOW/MED) MED Date Received: 05/13/2010
% Moisture: not dec. 13 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)
Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	µG/KG
1634-04-4	Methyl tert-butyl ether	220	U
71-43-2	Benzene	220	U
108-88-3	Toluene	220	U
100-41-4	Ethylbenzene	160	J
1330-20-7	m,p-Xylene	510	
95-47-6	o-Xylene	200	J
1330-20-7	Xylene (Total)	710	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB02-1719

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-03B
Sample wt/vol: 7.10 (g/mL) G Lab File ID: V6H4669.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/13/2010
% Moisture: not dec. 12 Date Analyzed: 05/20/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether		4.0	U
71-43-2	Benzene		4.0	U
108-88-3	Toluene		4.0	U
100-41-4	Ethylbenzene		1.9	J
1330-20-7	m,p-Xylene		2.1	J
95-47-6	o-Xylene		4.0	U
1330-20-7	Xylene (Total)		2.1	J

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB02-2325

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-04B
Sample wt/vol: 7.80 (g/mL) G Lab File ID: V6H4670.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/13/2010
% Moisture: not dec. 15 Date Analyzed: 05/20/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether		3.8	U
71-43-2	Benzene		3.8	U
108-88-3	Toluene		3.8	U
100-41-4	Ethylbenzene		3.8	U
1330-20-7	m,p-Xylene		3.8	U
95-47-6	o-Xylene		3.8	U
1330-20-7	Xylene (Total)		1.0	J

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SBDUP01

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-05B
Sample wt/vol: 7.10 (g/mL) G Lab File ID: V6H4671.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/13/2010
% Moisture: not dec. 13 Date Analyzed: 05/20/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	4.0	U
71-43-2	Benzene	4.0	U
108-88-3	Toluene	4.0	U
100-41-4	Ethylbenzene	4.0	U
1330-20-7	m,p-Xylene	4.0	U
95-47-6	o-Xylene	4.0	U
1330-20-7	Xylene (Total)	4.0	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB03-2224

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-06B
Sample wt/vol: 7.70 (g/mL) G Lab File ID: V6H4672.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/13/2010
% Moisture: not dec. 11 Date Analyzed: 05/20/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/KG	
1634-04-4	Methyl tert-butyl ether		3.6	U
71-43-2	Benzene		3.6	U
108-88-3	Toluene		3.6	U
100-41-4	Ethylbenzene		3.6	U
1330-20-7	m,p-Xylene		3.6	U
95-47-6	o-Xylene		3.6	U
1330-20-7	Xylene (Total)		3.6	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB03-1416

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-07B
Sample wt/vol: 8.00 (g/mL) G Lab File ID: V6H4673.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/13/2010
% Moisture: not dec. 13 Date Analyzed: 05/20/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether		3.6	U
71-43-2	Benzene		3.6	U
108-88-3	Toluene		3.6	U
100-41-4	Ethylbenzene		3.6	U
1330-20-7	m,p-Xylene		3.6	U
95-47-6	o-Xylene		3.6	U
1330-20-7	Xylene (Total)		3.6	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06TBS0-051310

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-08A
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6H4666.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/13/2010
% Moisture: not dec. Date Analyzed: 05/20/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether	5.0		U
71-43-2	Benzene	5.0		U
108-88-3	Toluene	1.1		J
100-41-4	Ethylbenzene	5.0		U
1330-20-7	m,p-Xylene	5.0		U
95-47-6	o-Xylene	5.0		U
1330-20-7	Xylene (Total)	5.0		U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
06SB06-1517

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-09B
Sample wt/vol: 7.00 (g/mL) G Lab File ID: V6H4807.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 12 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	4.1	U
71-43-2	Benzene	4.1	U
108-88-3	Toluene	4.1	U
100-41-4	Ethylbenzene	4.1	U
1330-20-7	m,p-Xylene	4.1	U
95-47-6	o-Xylene	4.1	U
1330-20-7	Xylene (Total)	4.1	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
06SB06-2224

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-10B
Sample wt/vol: 6.90 (g/mL) G Lab File ID: V6H4808.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 13 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	4.2	U
71-43-2	Benzene	4.2	U
108-88-3	Toluene	4.2	U
100-41-4	Ethylbenzene	4.2	U
1330-20-7	m,p-Xylene	4.2	U
95-47-6	o-Xylene	4.2	U
1330-20-7	Xylene (Total)	4.2	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB06-2224MS

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-10BMS
Sample wt/vol: 8.20 (g/mL) G Lab File ID: V6H4871.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 13 Date Analyzed: 05/27/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether		31	
71-43-2	Benzene		21	
108-88-3	Toluene		19	
100-41-4	Ethylbenzene		18	
1330-20-7	m,p-Xylene		34	
95-47-6	o-Xylene		19	
1330-20-7	Xylene (Total)		53	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
06SB06-2224MSD

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-10BMSD
Sample wt/vol: 7.40 (g/mL) G Lab File ID: V6H4872.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 13 Date Analyzed: 05/27/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	33	
71-43-2	Benzene	23	
108-88-3	Toluene	20	
100-41-4	Ethylbenzene	20	
1330-20-7	m,p-Xylene	37	
95-47-6	o-Xylene	20	
1330-20-7	Xylene (Total)	58	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB07-1416

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-11B
Sample wt/vol: 8.50 (g/mL) G Lab File ID: V6H4835.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 13 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	3.4	U
71-43-2	Benzene	3.4	U
108-88-3	Toluene	3.4	U
100-41-4	Ethylbenzene	3.4	U
1330-20-7	m,p-Xylene	3.4	U
95-47-6	o-Xylene	3.4	U
1330-20-7	Xylene (Total)	3.4	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB07-1214

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-12B
Sample wt/vol: 7.60 (g/mL) G Lab File ID: V6H4810.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 8.0 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	µG/KG
1634-04-4	Methyl tert-butyl ether	3.6	U
71-43-2	Benzene	3.6	U
108-88-3	Toluene	3.6	U
100-41-4	Ethylbenzene	3.6	U
1330-20-7	m,p-Xylene	3.6	U
95-47-6	o-Xylene	3.6	U
1330-20-7	Xylene (Total)	3.6	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB08-1214

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-13B
Sample wt/vol: 7.80 (g/mL) G Lab File ID: V6H4811.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 13 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether		3.7	U
71-43-2	Benzene		3.7	U
108-88-3	Toluene		3.7	U
100-41-4	Ethylbenzene		3.7	U
1330-20-7	m,p-Xylene		3.7	U
95-47-6	o-Xylene		3.7	U
1330-20-7	Xylene (Total)		3.7	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB08-1416

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-14B
Sample wt/vol: 7.20 (g/mL) G Lab File ID: V6H4812.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 14 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	µG/KG
1634-04-4	Methyl tert-butyl ether	4.0	U
71-43-2	Benzene	4.0	U
108-88-3	Toluene	4.0	U
100-41-4	Ethylbenzene	4.0	U
1330-20-7	m,p-Xylene	4.0	U
95-47-6	o-Xylene	4.0	U
1330-20-7	Xylene (Total)	4.0	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB09-1214

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-15C
Sample wt/vol: 8.40 (g/mL) G Lab File ID: V1L4190.D
Level: (TRACE/LOW/MED) MED Date Received: 05/20/2010
% Moisture: not dec. 21 Date Analyzed: 05/27/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)
Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	250	U
71-43-2	Benzene	250	U
108-88-3	Toluene	250	U
100-41-4	Ethylbenzene	1200	
1330-20-7	m,p-Xylene	3000	
95-47-6	o-Xylene	1700	
1330-20-7	Xylene (Total)	4700	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB09-1416

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-16B
Sample wt/vol: 7.30 (g/mL) G Lab File ID: V6H4814.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 14 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether		4.0	U
71-43-2	Benzene		4.0	U
108-88-3	Toluene		4.0	U
100-41-4	Ethylbenzene		2.0	J
1330-20-7	m,p-Xylene		6.1	
95-47-6	o-Xylene		3.1	J
1330-20-7	Xylene (Total)		9.1	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB11-0810

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-17B
Sample wt/vol: 8.40 (g/mL) G Lab File ID: V6H4815.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 25 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/KG	
1634-04-4	Methyl tert-butyl ether		4.0	U
71-43-2	Benzene		4.0	U
108-88-3	Toluene		4.0	U
100-41-4	Ethylbenzene		4.0	U
1330-20-7	m,p-Xylene		4.0	U
95-47-6	o-Xylene		4.0	U
1330-20-7	Xylene (Total)		4.0	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB11-1012

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-18B
Sample wt/vol: 7.70 (g/mL) G Lab File ID: V6H4816.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 27 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether		4.4	U
71-43-2	Benzene		4.4	U
108-88-3	Toluene		4.4	U
100-41-4	Ethylbenzene		4.4	U
1330-20-7	m,p-Xylene		4.4	U
95-47-6	o-Xylene		4.4	U
1330-20-7	Xylene (Total)		4.4	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB12-1214

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-19B
Sample wt/vol: 6.90 (g/mL) G Lab File ID: V6H4817.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 17 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether		4.4	U
71-43-2	Benzene		4.4	U
108-88-3	Toluene		4.4	U
100-41-4	Ethylbenzene		4.4	U
1330-20-7	m,p-Xylene		4.4	U
95-47-6	o-Xylene		4.4	U
1330-20-7	Xylene (Total)		4.4	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB12-1416

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-20B
Sample wt/vol: 7.10 (g/mL) G Lab File ID: V6H4818.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 13 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	Q
1634-04-4	Methyl tert-butyl ether	4.0	U
71-43-2	Benzene	4.0	U
108-88-3	Toluene	4.0	U
100-41-4	Ethylbenzene	4.0	U
1330-20-7	m,p-Xylene	4.0	U
95-47-6	o-Xylene	4.0	U
1330-20-7	Xylene (Total)	4.0	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB13-1012

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-21B
Sample wt/vol: 7.10 (g/mL) G Lab File ID: V6H4819.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 16 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	µG/KG
1634-04-4	Methyl tert-butyl ether	4.2	U
71-43-2	Benzene	4.2	U
108-88-3	Toluene	4.2	U
100-41-4	Ethylbenzene	4.2	U
1330-20-7	m,p-Xylene	4.2	U
95-47-6	o-Xylene	4.2	U
1330-20-7	Xylene (Total)	4.2	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB13-1214

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-22B
Sample wt/vol: 8.50 (g/mL) G Lab File ID: V6H4820.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 12 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether		3.3	U
71-43-2	Benzene		3.3	U
108-88-3	Toluene		3.3	U
100-41-4	Ethylbenzene		3.3	U
1330-20-7	m,p-Xylene		3.3	U
95-47-6	o-Xylene		3.3	U
1330-20-7	Xylene (Total)		3.3	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB14-0810

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-23C
Sample wt/vol: 7.90 (g/mL) G Lab File ID: V1L4191.D
Level: (TRACE/LOW/MED) MED Date Received: 05/20/2010
% Moisture: not dec. 24 Date Analyzed: 05/27/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)
Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether		290	U
71-43-2	Benzene		220	J
108-88-3	Toluene		2800	
100-41-4	Ethylbenzene		6800	
1330-20-7	m,p-Xylene		21000	
95-47-6	o-Xylene		10000	
1330-20-7	Xylene (Total)		32000	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06SB14-1012

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-24C
Sample wt/vol: 8.90 (g/mL) G Lab File ID: V1L4192.D
Level: (TRACE/LOW/MED) MED Date Received: 05/20/2010
% Moisture: not dec. 23 Date Analyzed: 05/27/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)
Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	260	U
71-43-2	Benzene	340	
108-88-3	Toluene	2300	
100-41-4	Ethylbenzene	6900	
1330-20-7	m,p-Xylene	19000	
95-47-6	o-Xylene	9000	
1330-20-7	Xylene (Total)	28000	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

06TBSO-051910

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J0988-25A
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6H4806.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 0.0 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether		5.0	U
71-43-2	Benzene		5.0	U
108-88-3	Toluene		5.0	U
100-41-4	Ethylbenzene		5.0	U
1330-20-7	m,p-Xylene		5.0	U
95-47-6	o-Xylene		5.0	U
1330-20-7	Xylene (Total)		5.0	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

LCS-51697

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-51697
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6H4662.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/20/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	µG/KG
1634-04-4	Methyl tert-butyl ether	53	
71-43-2	Benzene	53	
108-88-3	Toluene	53	
100-41-4	Ethylbenzene	58	
1330-20-7	m,p-Xylene	110	
95-47-6	o-Xylene	59	
1330-20-7	Xylene (Total)	170	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

LCS-51810

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-51810
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6H4802.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether		60	
71-43-2	Benzene		52	
108-88-3	Toluene		53	
100-41-4	Ethylbenzene		54	
1330-20-7	m,p-Xylene		110	
95-47-6	o-Xylene		56	
1330-20-7	Xylene (Total)		160	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
LCS-51840

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-51840
Sample wt/vol: #Error (g/mL) G Lab File ID: V6H4832.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether		46	
71-43-2	Benzene		43	
108-88-3	Toluene		41	
100-41-4	Ethylbenzene		44	
1330-20-7	m,p-Xylene		90	
95-47-6	o-Xylene		48	
1330-20-7	Xylene (Total)		140	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

LCS-51854

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-51854
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6H4851.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/26/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/KG	
1634-04-4	Methyl tert-butyl ether		47	
71-43-2	Benzene		49	
108-88-3	Toluene		47	
100-41-4	Ethylbenzene		48	
1330-20-7	m,p-Xylene		95	
95-47-6	o-Xylene		51	
1330-20-7	Xylene (Total)		150	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

LCSD-51697

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCSD-51697
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6H4663.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/20/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether		56	
71-43-2	Benzene		51	
108-88-3	Toluene		48	
100-41-4	Ethylbenzene		50	
1330-20-7	m,p-Xylene		99	
95-47-6	o-Xylene		52	
1330-20-7	Xylene (Total)		150	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

LCSD-51810

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCSD-51810
Sample wt/vol: .00 (g/mL) G Lab File ID: V6H4803.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether		65	
71-43-2	Benzene		55	
108-88-3	Toluene		56	
100-41-4	Ethylbenzene		57	
1330-20-7	m,p-Xylene		110	
95-47-6	o-Xylene		62	
1330-20-7	Xylene (Total)		180	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

LCS-51819

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-51819
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1L4084.D
Level: (TRACE/LOW/MED) MED Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)
Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	2400	
71-43-2	Benzene	2400	
108-88-3	Toluene	2400	
100-41-4	Ethylbenzene	2500	
1330-20-7	m,p-Xylene	4900	
95-47-6	o-Xylene	2400	
1330-20-7	Xylene (Total)	7300	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

LCS-51880

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-51880
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1L4174.D
Level: (TRACE/LOW/MED) MED Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/27/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)
Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/KG	
1634-04-4	Methyl tert-butyl ether		2500	
71-43-2	Benzene		2400	
108-88-3	Toluene		2400	
100-41-4	Ethylbenzene		2400	
1330-20-7	m,p-Xylene		4700	
95-47-6	o-Xylene		2400	
1330-20-7	Xylene (Total)		7100	

SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES

Contract:

Lab Code: MITKEM

Case No.: J0988

Mod. Ref No.:

SDG No.: SJ0988

Level: (LOW/MED) LOW

	CLIENT SAMPLE NO.	VDMC1 (DBFM) #	VDMC2 (DCE) #	VDMC3 (TOL) #	VDMC4 (BFB) #				TOT OUT
01	LCS-51697	99	99	102	96				0
02	LCSD-51697	103	105	102	96				0
03	MB-51697	102	103	102	81				0
04	06TBS0-05131 0	109	115	97	82				0
05	06SB01-1416	102	109	118 *	212 *				2
06	06SB01-1618	98	108	132 *	274 *				2
07	06SB02-1719	100	108	93	96				0
08	06SB02-2325	97	104	99	112 *				1
09	06SBDUP01	98	104	98	86				0
10	06SB03-2224	97	99	97	100				0
11	06SB03-1416	98	111	98	90				0
12	LCS-51810	115	105	98	102				0
13	LCSD-51810	116	108	100	102				0
14	MB-51810	111	105	100	77				0
15	06TBS0-05191 0	117	123	98	79				0
16	06SB06-1517	114	116	113	231 *				1
17	06SB06-2224	109	113	96	91				0
18	06SB07-1214	102	73	102	82				0
19	06SB08-1214	113	86	96	85				0
20	06SB08-1416	116	88	95	85				0
21	06SB09-1416	104	91	97	195 *				1
22	06SB11-0810	105	89	94	92				0
23	06SB11-1012	107	85	98	82				0
24	06SB12-1214	101	85	98	80				0
25	06SB12-1416	107	88	99	85				0
26	06SB13-1012	105	91	98	80				0

VDMC1 (DBFM) Dibromofluoromethane
VDMC2 (DCE) = 1,2-Dichloroethane-d4
VDMC3 (TOL) = Toluene-d8
VDMC4 (BFB) = Bromofluorobenzene

QC LIMITS

(65-132)

(65-128)

(85-115)

(77-111)

Column to be used to flag recovery values

* Values outside of contract required QC limits

SOM_003

SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES

Contract: _____

Lab Code: MITKEM

Case No.: J0988

Mod. Ref No.: _____

SDG No.: SJ0988

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	VDMC1 (DBFM) #	VDMC2 (DCE) #	VDMC3 (TOL) #	VDMC4 (BFB) #				TOT OUT
27	06SB13-1214	106	91	99	77 *				1
28	LCS-51840	102	78	101	95				0
29	MB-51840	102	84	102	84				0
30	06SB07-1416	98	88	102	82				0
31	LCS-51854	106	104	97	108				0
32	MB-51854	101	108	104	82				0
33	06SB06-2224M S	112	123	98	105				0
34	06SB06-2224M SD	110	123	95	106				0

VDMC1 (DBFM) Dibromofluoromethane
VDMC2 (DCE) = 1,2-Dichloroethane-d4
VDMC3 (TOL) = Toluene-d8
VDMC4 (BFB) = Bromofluorobenzene

QC LIMITS
(65-132)
(65-128)
(85-115)
(77-111)

Column to be used to flag recovery values

* Values outside of contract required QC limits

SOM_003

SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES

Contract:

Lab Code: MITKEM

Case No.: J0988

Mod. Ref No.:

SDG No.: SJ0988

Level: (LOW/MED) MED

	CLIENT SAMPLE NO.	VDMC1 (DBFM) #	VDMC2 (DCE) #	VDMC3 (TOL) #	VDMC4 (BFB) #				TOT OUT
01	LCS-51819	99	102	100	98				0
02	MB-51819	99	96	102	94				0
03	06SB01-1416M E	92	97	102	109				0
04	06SB01-1618M E	95	94	100	103				0
05	LCS-51880	99	92	101	96				0
06	MB-51880	99	88	106	93				0
07	06SB09-1214	95	89	107	110				0
08	06SB14-0810	98	89	104	104				0
09	06SB14-1012	99	88	106	104				0

QC LIMITS

VDMC1 (DBFM) Dibromofluoromethane
VDMC2 (DCE) = 1,2-Dichloroethane-d4
VDMC3 (TOL) = Toluene-d8
VDMC4 (BFB) = Bromofluorobenzene

(65-132)
(65-128)
(85-115)
(77-111)

Column to be used to flag recovery values

* Values outside of contract required QC limits

3B - FORM III VOA-2
SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
 Matrix Spike - EPA Sample No.: 06SB06-2224 Level: (LOW/MED) LOW

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	MS CONCENTRATION (µg/Kg)	MS %REC	#	QC. LIMITS REC.
Methyl tert-butyl ether	35.0435	0.0000	31.3964	90		75-126
Benzene	35.0435	0.0000	21.4070	61	*	75-125
Toluene	35.0435	0.0000	18.5852	53	*	70-125
Ethylbenzene	35.0435	0.0000	18.1720	52	*	75-125
m,p-Xylene	70.0869	0.0000	34.0454	49	*	80-125
o-Xylene	35.0435	0.0000	19.3922	55	*	75-125
Xylene (Total)	105.1304	0.0000	53.4376	51	*	83-125

COMPOUND	SPIKE ADDED (µg/Kg)	MSD CONCENTRATION (µg/Kg)	MSD %REC	#	%RPD #	QC LIMITS	
						RPD	REC.
Methyl tert-butyl ether	38.8319	33.2661	86		4	0-40	75-126
Benzene	38.8319	22.9126	59	*	3	0-40	75-125
Toluene	38.8319	20.3142	52	*	1	0-40	70-125
Ethylbenzene	38.8319	19.7244	51	*	2	0-40	75-125
m,p-Xylene	77.6639	37.4211	48	*	1	0-40	80-125
o-Xylene	38.8319	20.2243	52	*	6	0-40	75-125
Xylene (Total)	116.4958	57.6453	49	*	3	0-40	83-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 7 outside limits

Spike Recovery: 12 out of 14 outside limits

COMMENTS: _____

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

CLIENT SAMPLE NO.

LCS-51697

Lab Name: MITKEM LABORATORIES

Contract: _____

Lab Code: MITKEM

Case No.: J0988

Mod. Ref No.: _____

SDG No.: SJ0988

Lab Sample ID: LCS-51697

LCS Lot No.: _____

Date Extracted: 05/20/2010

Date Analyzed (1): 05/20/2010

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Methyl tert-butyl ether	50.0000	0.0000	53.1621	106		75 - 126
Benzene	50.0000	0.0000	53.1057	106		75 - 125
Toluene	50.0000	0.0000	53.1559	106		70 - 125
Ethylbenzene	50.0000	0.0000	57.5500	115		75 - 125
m,p-Xylene	100.0000	0.0000	113.5484	114		80 - 125
o-Xylene	50.0000	0.0000	59.4656	119		75 - 125
Xylene (Total)	150.0000	0.0000	173.0141	115		83 - 125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 7 outside limits

COMMENTS: _____

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

LCSD-51697

Lab Name: MITKEM LABORATORIES

Contract:

Lab Code: MITKEM

Case No.: J0988

Mod. Ref No.:

SDG No.: SJ0988

Lab Sample ID: LCSD-51697

LCS Lot No.:

COMPOUND	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC LIMITS	
							RPD	REC.
Methyl tert-butyl ether	50.0000	55.9792	112		6		40	75 - 126
Benzene	50.0000	50.8621	102		4		40	75 - 125
Toluene	50.0000	47.8004	96		10		40	70 - 125
Ethylbenzene	50.0000	50.1725	100		14		40	75 - 125
m,p-Xylene	100.0000	98.8815	99		14		40	80 - 125
o-Xylene	50.0000	52.2304	104		13		40	75 - 125
Xylene (Total)	150.0000	151.1119	101		13		40	83 - 125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 7 outside limits

Spike Recovery: 0 out of 7 outside limits

COMMENTS:

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

CLIENT SAMPLE NO.

LCS-51810

Lab Name: MITKEM LABORATORIES

Contract:

Lab Code: MITKEM

Case No.: J0988

Mod. Ref No.:

SDG No.: SJ0988

Lab Sample ID: LCS-51810

LCS Lot No.:

Date Extracted: 05/25/2010

Date Analyzed (1): 05/25/2010

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Methyl tert-butyl ether	50.0000	0.0000	59.8872	120		75 - 126
Benzene	50.0000	0.0000	51.9075	104		75 - 125
Toluene	50.0000	0.0000	52.8804	106		70 - 125
Ethylbenzene	50.0000	0.0000	53.6079	107		75 - 125
m,p-Xylene	100.0000	0.0000	106.9017	107		80 - 125
o-Xylene	50.0000	0.0000	56.1728	112		75 - 125
Xylene (Total)	150.0000	0.0000	163.0745	109		83 - 125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 7 outside limits

COMMENTS:

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

LCSD-51810

Lab Name: MITKEM LABORATORIES

Contract:

Lab Code: MITKEM

Case No.: J0988

Mod. Ref No.:

SDG No.: SJ0988

Lab Sample ID: LCSD-51810

LCS Lot No.:

COMPOUND	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC LIMITS	
							RPD	REC.
Methyl tert-butyl ether	50.0000	65.4376	131	*	9		40	75 - 126
Benzene	50.0000	55.1903	110		6		40	75 - 125
Toluene	50.0000	56.2238	112		6		40	70 - 125
Ethylbenzene	50.0000	56.7544	114		6		40	75 - 125
m,p-Xylene	100.0000	114.2736	114		6		40	80 - 125
o-Xylene	50.0000	61.7166	123		9		40	75 - 125
Xylene (Total)	150.0000	175.9902	117		7		40	83 - 125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 7 outside limits

Spike Recovery: 1 out of 7 outside limits

COMMENTS:

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.

LCS-51840

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Lab Sample ID: LCS-51840 LCS Lot No.: _____
Date Extracted: _____ Date Analyzed (1): 05/25/2010

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Methyl tert-butyl ether	50.0000	0.0000	46.1541	92		75 - 126
Benzene	50.0000	0.0000	42.5022	85		75 - 125
Toluene	50.0000	0.0000	41.3929	83		70 - 125
Ethylbenzene	50.0000	0.0000	43.5947	87		75 - 125
m,p-Xylene	100.0000	0.0000	89.9128	90		80 - 125
o-Xylene	50.0000	0.0000	48.1465	96		75 - 125
Xylene (Total)	150.0000	0.0000	138.0593	92		83 - 125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 7 outside limits

COMMENTS: _____

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

CLIENT SAMPLE NO.

LCS-51854

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Lab Sample ID: LCS-51854 LCS Lot No.: _____
Date Extracted: 05/26/2010 Date Analyzed (1): 05/26/2010

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Methyl tert-butyl ether	50.0000	0.0000	47.1105	94		75 - 126
Benzene	50.0000	0.0000	49.3109	99		75 - 125
Toluene	50.0000	0.0000	47.4039	95		70 - 125
Ethylbenzene	50.0000	0.0000	47.5524	95		75 - 125
m,p-Xylene	100.0000	0.0000	95.3289	95		80 - 125
o-Xylene	50.0000	0.0000	50.9248	102		75 - 125
Xylene (Total)	150.0000	0.0000	146.2537	98		83 - 125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 7 outside limits

COMMENTS: _____

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

CLIENT SAMPLE NO.

LCS-51819

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Lab Sample ID: LCS-51819 LCS Lot No.: _____
Date Extracted: 05/25/2010 Date Analyzed (1): 05/25/2010

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Methyl tert-butyl ether	2500.0000	0.0000	2440.7410	98		75 - 126
Benzene	2500.0000	0.0000	2439.4501	98		75 - 125
Toluene	2500.0000	0.0000	2415.4967	97		70 - 125
Ethylbenzene	2500.0000	0.0000	2470.5936	99		75 - 125
m,p-Xylene	5000.0000	0.0000	4850.9011	97		80 - 125
o-Xylene	2500.0000	0.0000	2449.0965	98		75 - 125
Xylene (Total)	7500.0000	0.0000	7299.9976	97		75 - 125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 7 outside limits

COMMENTS: _____

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

CLIENT SAMPLE NO.

LCS-51880

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Lab Sample ID: LCS-51880 LCS Lot No.: _____
Date Extracted: 05/27/2010 Date Analyzed (1): 05/27/2010

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Methyl tert-butyl ether	2500.0000	0.0000	2450.0994	98		75 - 126
Benzene	2500.0000	0.0000	2435.7538	97		75 - 125
Toluene	2500.0000	0.0000	2352.2254	94		70 - 125
Ethylbenzene	2500.0000	0.0000	2382.6763	95		75 - 125
m,p-Xylene	5000.0000	0.0000	4697.4643	94		80 - 125
o-Xylene	2500.0000	0.0000	2375.0014	95		75 - 125
Xylene (Total)	7500.0000	0.0000	7072.4656	94		75 - 125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 7 outside limits

COMMENTS: _____

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

MB-51819

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Lab File ID: V1L4086.D Lab Sample ID: MB-51819
Instrument ID: V1
Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 05/25/2010
Level: (TRACE or LOW/MED) MED Time Analyzed: 12:48
GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS-51819	LCS-51819	V1L4084.D	11:43
02	06SB01-1416M E	J0988-01C	V1L4091.D	15:07
03	06SB01-1618M E	J0988-02C	V1L4092.D	15:34

COMMENTS: _____

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MB-51819

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-51819
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1L4086.D
Level: (TRACE/LOW/MED) MED Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)
Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	250	U
71-43-2	Benzene	250	U
108-88-3	Toluene	250	U
100-41-4	Ethylbenzene	250	U
1330-20-7	m,p-Xylene	250	U
95-47-6	o-Xylene	250	U
1330-20-7	Xylene (Total)	250	U

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

MB-51880

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Lab File ID: V1L4178.D Lab Sample ID: MB-51880
Instrument ID: V1
Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 05/27/2010
Level: (TRACE or LOW/MED) MED Time Analyzed: 11:31
GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS-51880	LCS-51880	V1L4174.D	9:25
02	06SB09-1214	J0988-15C	V1L4190.D	16:58
03	06SB14-0810	J0988-23C	V1L4191.D	17:25
04	06SB14-1012	J0988-24C	V1L4192.D	17:52

COMMENTS: _____

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MB-51880

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-51880
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1L4178.D
Level: (TRACE/LOW/MED) MED Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/27/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)
Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether		250	U
71-43-2	Benzene		250	U
108-88-3	Toluene		250	U
100-41-4	Ethylbenzene		250	U
1330-20-7	m,p-Xylene		250	U
95-47-6	o-Xylene		250	U
1330-20-7	Xylene (Total)		250	U

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MB-51697

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Lab File ID: V6H4665.D Lab Sample ID: MB-51697
Instrument ID: V6
Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 05/20/2010
Level: (TRACE or LOW/MED) LOW Time Analyzed: 10:35
GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS-51697	LCS-51697	V6H4662.D	8:56
02	LCSD-51697	LCSD-51697	V6H4663.D	9:26
03	06TBS0-05131 0	J0988-08A	V6H4666.D	11:14
04	06SB01-1416	J0988-01B	V6H4667.D	11:43
05	06SB01-1618	J0988-02B	V6H4668.D	12:13
06	06SB02-1719	J0988-03B	V6H4669.D	12:43
07	06SB02-2325	J0988-04B	V6H4670.D	13:13
08	06SBDUP01	J0988-05B	V6H4671.D	13:42
09	06SB03-2224	J0988-06B	V6H4672.D	14:12
10	06SB03-1416	J0988-07B	V6H4673.D	14:42

COMMENTS:

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MB-51697

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-51697
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6H4665.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/20/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/KG	
1634-04-4	Methyl tert-butyl ether		5.0	U
71-43-2	Benzene		5.0	U
108-88-3	Toluene		5.0	U
100-41-4	Ethylbenzene		5.0	U
1330-20-7	m,p-Xylene		5.0	U
95-47-6	o-Xylene		5.0	U
1330-20-7	Xylene (Total)		5.0	U

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MB-51810

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Lab File ID: V6H4804.D Lab Sample ID: MB-51810
Instrument ID: V6
Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 05/25/2010
Level: (TRACE or LOW/MED) LOW Time Analyzed: 10:16
GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS-51810	LCS-51810	V6H4802.D	9:17
02	LCSD-51810	LCSD-51810	V6H4803.D	9:46
03	06TBSO-05191 0	J0988-25A	V6H4806.D	11:15
04	06SB06-1517	J0988-09B	V6H4807.D	11:45
05	06SB06-2224	J0988-10B	V6H4808.D	12:14
06	06SB07-1214	J0988-12B	V6H4810.D	13:20
07	06SB08-1214	J0988-13B	V6H4811.D	13:51
08	06SB08-1416	J0988-14B	V6H4812.D	14:22
09	06SB09-1416	J0988-16B	V6H4814.D	15:24
10	06SB11-0810	J0988-17B	V6H4815.D	15:55
11	06SB11-1012	J0988-18B	V6H4816.D	16:26
12	06SB12-1214	J0988-19B	V6H4817.D	16:57
13	06SB12-1416	J0988-20B	V6H4818.D	17:28
14	06SB13-1012	J0988-21B	V6H4819.D	17:58
15	06SB13-1214	J0988-22B	V6H4820.D	18:29

COMMENTS: _____

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MB-51810

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-51810
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6H4804.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether		5.0	U
71-43-2	Benzene		5.0	U
108-88-3	Toluene		5.0	U
100-41-4	Ethylbenzene		5.0	U
1330-20-7	m,p-Xylene		5.0	U
95-47-6	o-Xylene		5.0	U
1330-20-7	Xylene (Total)		5.0	U

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MB-51840

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Lab File ID: V6H4833.D Lab Sample ID: MB-51840
Instrument ID: V6
Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 05/25/2010
Level: (TRACE or LOW/MED) LOW Time Analyzed: 22:32
GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS-51840	LCS-51840	V6H4832.D	22:01
02	06SB07-1416	J0988-11B	V6H4835.D	23:46

COMMENTS: _____

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MB-51840

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-51840
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6H4833.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether	5.0	U	U
71-43-2	Benzene	5.0	U	U
108-88-3	Toluene	5.0	U	U
100-41-4	Ethylbenzene	5.0	U	U
1330-20-7	m,p-Xylene	5.0	U	U
95-47-6	o-Xylene	5.0	U	U
1330-20-7	Xylene (Total)	5.0	U	U

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MB-51854

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Lab File ID: V6H4852.D Lab Sample ID: MB-51854
Instrument ID: V6
Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 05/26/2010
Level: (TRACE or LOW/MED) LOW Time Analyzed: 15:55
GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS-51854	LCS-51854	V6H4851.D	15:24
02	06SB06-2224M S	J0988-10BMS	V6H4871.D	1:26
03	06SB06-2224M SD	J0988-10BMSD	V6H4872.D	1:56

COMMENTS: _____

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MB-51854

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-51854
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6H4852.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/26/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/KG	
1634-04-4	Methyl tert-butyl ether		5.0	U
71-43-2	Benzene		5.0	U
108-88-3	Toluene		5.0	U
100-41-4	Ethylbenzene		5.0	U
1330-20-7	m,p-Xylene		5.0	U
95-47-6	o-Xylene		5.0	U
1330-20-7	Xylene (Total)		5.0	U

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

CLIENT SAMPLE NO.

BFB1X

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Lab File ID: V1L3980.D BFB Injection Date: 05/22/2010
Instrument ID: V1 BFB Injection Time: 12:07
GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.6
75	30.0 - 60.0% of mass 95	43.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	72.7
175	5.0 - 9.0% of mass 174	5.0 (6.9)1
176	95.0 - 101.0% of mass 174	69.1 (95.1)1
177	5.0 - 9.0% of mass 176	4.2 (6.1)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0501X	VSTD0501X	V1L3982.D	05/22/2010	13:06
02	VSTD0201X	VSTD0201X	V1L3983.D	05/22/2010	13:34
03	VSTD0051X	VSTD0051X	V1L3984.D	05/22/2010	14:01
04	VSTD2001X	VSTD2001X	V1L3987.D	05/22/2010	15:23
05	VSTD1001X	VSTD1001X	V1L3988.D	05/22/2010	15:51
06	VICV0501X	VICV0501X	V1L3989.D	05/22/2010	16:18

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

CLIENT SAMPLE NO.

BFB1B

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Lab File ID: V1L4080.D BFB Injection Date: 05/25/2010
Instrument ID: V1 BFB Injection Time: 9:47
GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.1
75	30.0 - 60.0% of mass 95	42.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	78.6
175	5.0 - 9.0% of mass 174	5.6 (7.2)1
176	95.0 - 101.0% of mass 174	76.0 (96.7)1
177	5.0 - 9.0% of mass 176	4.9 (6.4)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0501B	VSTD0501B	V1L4082.D	05/25/2010	10:39
02	LCS-51819	LCS-51819	V1L4084.D	05/25/2010	11:43
03	MB-51819	MB-51819	V1L4086.D	05/25/2010	12:48
04	06SB01-1416M E	J0988-01C	V1L4091.D	05/25/2010	15:07
05	06SB01-1618M E	J0988-02C	V1L4092.D	05/25/2010	15:34

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

CLIENT SAMPLE NO.

BFB1D

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Lab File ID: V1L4171.D BFB Injection Date: 05/27/2010
Instrument ID: V1 BFB Injection Time: 7:19
GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.3
75	30.0 - 60.0% of mass 95	43.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	72.2
175	5.0 - 9.0% of mass 174	5.2 (7.2)1
176	95.0 - 101.0% of mass 174	70.5 (97.6)1
177	5.0 - 9.0% of mass 176	4.6 (6.5)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0501D	VSTD0501D	V1L4172.D	05/27/2010	8:16
02	LCS-51880	LCS-51880	V1L4174.D	05/27/2010	9:25
03	MB-51880	MB-51880	V1L4178.D	05/27/2010	11:31
04	06SB09-1214	J0988-15C	V1L4190.D	05/27/2010	16:58
05	06SB14-0810	J0988-23C	V1L4191.D	05/27/2010	17:25
06	06SB14-1012	J0988-24C	V1L4192.D	05/27/2010	17:52

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

CLIENT SAMPLE NO.

BFB5X

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Lab File ID: V6H4620.D BFB Injection Date: 05/19/2010
Instrument ID: V6 BFB Injection Time: 7:58
GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.0
75	30.0 - 60.0% of mass 95	38.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	97.4
175	5.0 - 9.0% of mass 174	6.9 (7.0)1
176	95.0 - 101.0% of mass 174	94.5 (97.0)1
177	5.0 - 9.0% of mass 176	6.4 (6.7)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0206X	VSTD0206X	V6H4625.D	05/19/2010	11:06
02	VSTD0056X	VSTD0056X	V6H4626.D	05/19/2010	11:35
03	VSTD2006X	VSTD2006X	V6H4628.D	05/19/2010	12:37
04	VSTD1006X	VSTD1006X	V6H4629.D	05/19/2010	13:07
05	VSTD0506X	VSTD0506X	V6H4631.D	05/19/2010	14:18
06	VICV0506X	VICV0506X	V6H4632.D	05/19/2010	15:04

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

CLIENT SAMPLE NO.

BFB5Z

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Lab File ID: V6H4660.D BFB Injection Date: 05/20/2010
Instrument ID: V6 BFB Injection Time: 7:43
GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.4
75	30.0 - 60.0% of mass 95	39.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.6 (0.6)1
174	50.0 - 100.0% of mass 95	90.3
175	5.0 - 9.0% of mass 174	6.7 (7.4)1
176	95.0 - 101.0% of mass 174	86.9 (96.2)1
177	5.0 - 9.0% of mass 176	5.8 (6.7)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0506Z	VSTD0506Z	V6H4661.D	05/20/2010	8:00
02	LCS-51697	LCS-51697	V6H4662.D	05/20/2010	8:56
03	LCSD-51697	LCSD-51697	V6H4663.D	05/20/2010	9:26
04	MB-51697	MB-51697	V6H4665.D	05/20/2010	10:35
05	06TBS0-05131 0	J0988-08A	V6H4666.D	05/20/2010	11:14
06	06SB01-1416	J0988-01B	V6H4667.D	05/20/2010	11:43
07	06SB01-1618	J0988-02B	V6H4668.D	05/20/2010	12:13
08	06SB02-1719	J0988-03B	V6H4669.D	05/20/2010	12:43
09	06SB02-2325	J0988-04B	V6H4670.D	05/20/2010	13:13
10	06SBDUP01	J0988-05B	V6H4671.D	05/20/2010	13:42
11	06SB03-2224	J0988-06B	V6H4672.D	05/20/2010	14:12
12	06SB03-1416	J0988-07B	V6H4673.D	05/20/2010	14:42

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

CLIENT SAMPLE NO.

BFB5F

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Lab File ID: V6H4800.D BFB Injection Date: 05/25/2010
Instrument ID: V6 BFB Injection Time: 8:18
GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.6
75	30.0 - 60.0% of mass 95	41.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.7 (0.7)1
174	50.0 - 100.0% of mass 95	99.7
175	5.0 - 9.0% of mass 174	7.4 (7.4)1
176	95.0 - 101.0% of mass 174	97.9 (98.2)1
177	5.0 - 9.0% of mass 176	6.1 (6.3)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0506F	VSTD0506F	V6H4801.D	05/25/2010	8:35
02	LCS-51810	LCS-51810	V6H4802.D	05/25/2010	9:17
03	LCSD-51810	LCSD-51810	V6H4803.D	05/25/2010	9:46
04	MB-51810	MB-51810	V6H4804.D	05/25/2010	10:16
05	06TBSO-05191 0	J0988-25A	V6H4806.D	05/25/2010	11:15
06	06SB06-1517	J0988-09B	V6H4807.D	05/25/2010	11:45
07	06SB06-2224	J0988-10B	V6H4808.D	05/25/2010	12:14
08	06SB07-1214	J0988-12B	V6H4810.D	05/25/2010	13:20
09	06SB08-1214	J0988-13B	V6H4811.D	05/25/2010	13:51
10	06SB08-1416	J0988-14B	V6H4812.D	05/25/2010	14:22
11	06SB09-1416	J0988-16B	V6H4814.D	05/25/2010	15:24
12	06SB11-0810	J0988-17B	V6H4815.D	05/25/2010	15:55
13	06SB11-1012	J0988-18B	V6H4816.D	05/25/2010	16:26
14	06SB12-1214	J0988-19B	V6H4817.D	05/25/2010	16:57
15	06SB12-1416	J0988-20B	V6H4818.D	05/25/2010	17:28
16	06SB13-1012	J0988-21B	V6H4819.D	05/25/2010	17:58
17	06SB13-1214	J0988-22B	V6H4820.D	05/25/2010	18:29

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB5G

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Lab File ID: V6H4830.D BFB Injection Date: 05/25/2010
Instrument ID: V6 BFB Injection Time: 21:11
GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.8
75	30.0 - 60.0% of mass 95	41.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	1.1 (1.1)1
174	50.0 - 100.0% of mass 95	93.6
175	5.0 - 9.0% of mass 174	6.9 (7.4)1
176	95.0 - 101.0% of mass 174	90.9 (97.1)1
177	5.0 - 9.0% of mass 176	6.6 (7.2)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0506G	VSTD0506G	V6H4831.D	05/25/2010	21:31
02	LCS-51840	LCS-51840	V6H4832.D	05/25/2010	22:01
03	MB-51840	MB-51840	V6H4833.D	05/25/2010	22:32
04	06SB07-1416	J0988-11B	V6H4835.D	05/25/2010	23:46

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

CLIENT SAMPLE NO.

BFB5H

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Lab File ID: V6H4840.D BFB Injection Date: 05/26/2010
Instrument ID: V6 BFB Injection Time: 7:55
GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.9
75	30.0 - 60.0% of mass 95	41.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	97.1
175	5.0 - 9.0% of mass 174	6.6 (6.8)1
176	95.0 - 101.0% of mass 174	93.7 (96.5)1
177	5.0 - 9.0% of mass 176	6.4 (6.8)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0506H	VSTD0506H	V6H4842.D	05/26/2010	9:46
02	VSTD0206H	VSTD0206H	V6H4843.D	05/26/2010	10:30
03	VSTD0056H	VSTD0056H	V6H4844.D	05/26/2010	11:01
04	VSTD2006H	VSTD2006H	V6H4845.D	05/26/2010	11:32
05	VSTD1006H	VSTD1006H	V6H4846.D	05/26/2010	12:03
06	VICV0506H	VICV0506H	V6H4847.D	05/26/2010	13:32

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

CLIENT SAMPLE NO.

BFB6I

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Lab File ID: V6H4849.D BFB Injection Date: 05/26/2010
Instrument ID: V6 BFB Injection Time: 14:14
GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.3
75	30.0 - 60.0% of mass 95	47.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	92.3
175	5.0 - 9.0% of mass 174	7.5 (8.1)1
176	95.0 - 101.0% of mass 174	89.7 (97.1)1
177	5.0 - 9.0% of mass 176	5.4 (6.0)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0506I	VSTD0506I	V6H4850.D	05/26/2010	14:53
02	LCS-51854	LCS-51854	V6H4851.D	05/26/2010	15:24
03	MB-51854	MB-51854	V6H4852.D	05/26/2010	15:55
04	06SB06-2224M S	J0988-10BMS	V6H4871.D	05/27/2010	1:26
05	06SB06-2224M SD	J0988-10BMSD	V6H4872.D	05/27/2010	1:56

6A - FORM VI VOA-1
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988

Instrument ID: V1 Calibration Date(s): 05/22/2010 05/22/2010

Heated Purge: (Y/N) N Calibration Time(s): 13:06 15:51

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____	RRF005 =	V1L3984.D	RRF020 =	V1L3983.D			
RRF050 =	V1L3982.D	RRF100 =	V1L3988.D	RRF200 =	V1L3987.D		
COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	RRF	%RSD
Methyl tert-butyl ether	0.890	0.958	0.846	0.873	0.806	0.875	6.5
Benzene	1.323	1.425	1.286	1.290	1.249	1.315	5.1
Toluene	1.231	1.351	1.184	1.208	1.174	1.230	5.8
Ethylbenzene	0.535	0.632	0.568	0.582	0.579	0.579	6.0
m,p-Xylene	0.722	0.811	0.707	0.730	0.696	0.733	6.2
o-Xylene	0.695	0.797	0.695	0.714	0.689	0.718	6.3
Xylene (Total)	0.713	0.806	0.703	0.725	0.694	0.728	6.2

6B - FORM VI VOA-2
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988

Instrument ID: V1 Calibration Date(s): 05/22/2010 05/22/2010

Heated Purge: (Y/N) N Calibration Time(s): 13:06 15:51

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____	RRF005 = _____	V1L3984.D	RRF020 = _____	V1L3983.D
RRF050 = _____	V1L3982.D	RRF100 = _____	V1L3988.D	RRF200 = _____
				V1L3987.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	RRF	%RSD
Dibromofluoromethane	0.294	0.287	0.281	0.287	0.279	0.286	2.1
1,2-Dichloroethane-d4	0.063	0.063	0.066	0.066	0.061	0.064	3.1
Toluene-d8	1.360	1.354	1.354	1.341	1.347	1.351	0.5
Bromofluorobenzene	0.505	0.509	0.520	0.517	0.518	0.514	1.2

6A - FORM VI VOA-1
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988

Instrument ID: V6 Calibration Date(s): 05/19/2010 05/19/2010

Heated Purge: (Y/N) Y Calibration Time(s): 11:06 14:18

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____	RRF005 =	V6H4626.D	RRF020 =	V6H4625.D			
RRF050 =	V6H4631.D	RRF100 =	V6H4629.D	RRF200 =	V6H4628.D		
COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	RRF	%RSD
Methyl tert-butyl ether	0.530	0.647	0.641	0.660	0.444	0.585	16.1
Benzene	0.829	0.860	0.822	0.779	0.536	0.765	17.1
Toluene	0.402	0.427	0.439	0.426	0.294	0.397	15.0
Ethylbenzene	0.405	0.503	0.512	0.502	0.352	0.455	15.9
m,p-Xylene	0.548	0.624	0.617	0.594	0.411	0.559	15.7
o-Xylene	0.425	0.571	0.592	0.582	0.403	0.515	17.9
Xylene (Total)	0.507	0.606	0.609	0.590	0.409	0.544	15.9

6B - FORM VI VOA-2
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988

Instrument ID: V6 Calibration Date(s): 05/19/2010 05/19/2010

Heated Purge: (Y/N) Y Calibration Time(s): 11:06 14:18

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____	RRF005 =	V6H4626.D	RRF020 =	V6H4625.D	
RRF050 =	V6H4631.D	RRF100 =	V6H4629.D	RRF200 =	V6H4628.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	RRF	%RSD
Dibromofluoromethane	0.301	0.308	0.302	0.299	0.307	0.303	1.2
1,2-Dichloroethane-d4	0.047	0.046	0.047	0.042	0.044	0.045	4.7
Toluene-d8	1.203	1.225	1.232	1.203	1.233	1.219	1.2
Bromofluorobenzene	0.489	0.497	0.501	0.504	0.526	0.504	2.7

6A - FORM VI VOA-1
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988

Instrument ID: V1 Calibration Date(s): 05/22/2010 05/22/2010

Heated Purge: (Y/N) N Calibration Time(s): 13:06 15:51

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____

RRF005 = V1L3984.D

RRF020 = V1L3983.D

RRF050 = V1L3982.D

RRF100 = V1L3988.D

RRF200 = V1L3987.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	RRF	%RSD
Methyl tert-butyl ether	0.890	0.958	0.846	0.873	0.806	0.875	6.5
Benzene	1.323	1.425	1.286	1.290	1.249	1.315	5.1
Toluene	1.231	1.351	1.184	1.208	1.174	1.230	5.8
Ethylbenzene	0.535	0.632	0.568	0.582	0.579	0.579	6.0
m,p-Xylene	0.722	0.811	0.707	0.730	0.696	0.733	6.2
o-Xylene	0.695	0.797	0.695	0.714	0.689	0.718	6.3
Xylene (Total)	0.713	0.806	0.703	0.725	0.694	0.728	6.2

6B - FORM VI VOA-2
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988

Instrument ID: V1 Calibration Date(s): 05/22/2010 05/22/2010

Heated Purge: (Y/N) N Calibration Time(s): 13:06 15:51

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____	RRF005 = <u>V1L3984.D</u>	RRF020 = <u>V1L3983.D</u>
RRF050 = <u>V1L3982.D</u>	RRF100 = <u>V1L3988.D</u>	RRF200 = <u>V1L3987.D</u>

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	RRF	%RSD
Dibromofluoromethane	0.294	0.287	0.281	0.287	0.279	0.286	2.1
1,2-Dichloroethane-d4	0.063	0.063	0.066	0.066	0.061	0.064	3.1
Toluene-d8	1.360	1.354	1.354	1.341	1.347	1.351	0.5
Bromofluorobenzene	0.505	0.509	0.520	0.517	0.518	0.514	1.2

6A - FORM VI VOA-1
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988

Instrument ID: V6 Calibration Date(s): 05/26/2010 05/26/2010

Heated Purge: (Y/N) Y Calibration Time(s): 9:46 12:03

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____		RRF005 =	V6H4844.D		RRF020 =	V6H4843.D				
RRF050 =		V6H4842.D		RRF100 =	V6H4846.D		RRF200 =	V6H4845.D		
COMPOUND				RRF005	RRF020	RRF050	RRF100	RRF200	RRF	%RSD
Methyl tert-butyl ether				0.358	0.403	0.337	0.443	0.440	0.396	12.2
Benzene				0.677	0.635	0.702	0.695	0.668	0.675	3.9
Toluene				0.329	0.305	0.365	0.400	0.387	0.357	11.1
Ethylbenzene				0.409	0.420	0.483	0.463	0.439	0.443	6.9
m,p-Xylene				0.518	0.512	0.596	0.561	0.533	0.544	6.4
o-Xylene				0.453	0.482	0.559	0.541	0.517	0.511	8.5
Xylene (Total)				0.496	0.502	0.584	0.555	0.528	0.533	6.9

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988

Instrument ID: V6 Calibration Date(s): 05/26/2010 05/26/2010

Heated Purge: (Y/N) Y Calibration Time(s): 9:46 12:03

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____	RRF005 =	V6H4844.D	RRF020 =	V6H4843.D	
RRF050 =	V6H4842.D	RRF100 =	V6H4846.D	RRF200 =	V6H4845.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	RRF	%RSD
Dibromofluoromethane	0.293	0.300	0.294	0.304	0.308	0.300	2.2
1,2-Dichloroethane-d4	0.038	0.037	0.039	0.036	0.036	0.037	3.8
Toluene-d8	1.242	1.322	1.287	1.278	1.261	1.278	2.3
Bromofluorobenzene	0.399	0.436	0.457	0.469	0.477	0.448	7.0

7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988

Instrument ID: V6 Calibration Date: 05/20/2010 Time: 8:00

Lab File ID: V6H4661.D Init. Calib. Date(s): 05/19/2010 05/19/2010

EPA Sample No. (VSTD#####): VSTD0506Z Init. Calib. Time(s): 11:06 14:18

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Methyl tert-butyl ether	0.585	0.621	0.010	6.2	20.0
Benzene	0.765	0.801	0.010	4.6	20.0
Toluene	0.397	0.364	0.010	-8.4	20.0
Ethylbenzene	0.455	0.476	0.010	4.8	20.0
m,p-Xylene	0.559	0.577	0.010	3.3	20.0
o-Xylene	0.515	0.557	0.010	8.2	20.0
Xylene (Total)	0.544	0.570	0.010	4.8	20.0

7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988

Instrument ID: V1 Calibration Date: 05/25/2010 Time: 10:39

Lab File ID: V1L4082.D Init. Calib. Date(s): 05/22/2010 05/22/2010

EPA Sample No. (VSTD####): VSTD0501B Init. Calib. Time(s): 13:06 15:51

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Methyl tert-butyl ether	0.875	0.831	0.010	-5.0	20.0
Benzene	1.315	1.324	0.010	0.7	20.0
Toluene	1.230	1.208	0.010	-1.7	20.0
Ethylbenzene	0.579	0.586	0.010	1.2	20.0
m,p-Xylene	0.733	0.720	0.010	-1.8	20.0
o-Xylene	0.718	0.713	0.010	-0.7	20.0
Xylene (Total)	0.728	0.718	0.010	-1.4	20.0

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Instrument ID: V1 Calibration Date: 05/25/2010 Time: 10:39
Lab File ID: V1L4082.D Init. Calib. Date(s): 05/22/2010 05/22/2010
EPA Sample No. (VSTD#####): VSTD0501B Init. Calib. Time(s): 13:06 15:51
Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)
Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.286	0.281	0.010	-1.7	20.0
1,2-Dichloroethane-d4	0.064	0.061	0.010	-4.1	20.0
Toluene-d8	1.351	1.352	0.010	0.1	20.0
Bromofluorobenzene	0.514	0.501	0.010	-2.6	20.0

7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
 Instrument ID: V1 Calibration Date: 05/27/2010 Time: 8:16
 Lab File ID: V1L4172.D Init. Calib. Date(s): 05/22/2010 05/22/2010
 EPA Sample No. (VSTD#####): VSTD0501D Init. Calib. Time(s): 13:06 15:51
 Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)
 Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Methyl tert-butyl ether	0.875	0.913	0.010	4.4	20.0
Benzene	1.315	1.520	0.010	15.6	20.0
Toluene	1.230	1.365	0.010	11.0	20.0
Ethylbenzene	0.579	0.650	0.010	12.1	20.0
m,p-Xylene	0.733	0.816	0.010	11.4	20.0
o-Xylene	0.718	0.797	0.010	11.0	20.0
Xylene (Total)	0.728	0.810	0.010	11.2	20.0

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Instrument ID: V1 Calibration Date: 05/27/2010 Time: 8:16
Lab File ID: VIL4172.D Init. Calib. Date(s): 05/22/2010 05/22/2010
EPA Sample No. (VSTD####): VSTD0501D Init. Calib. Time(s): 13:06 15:51
Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)
Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.286	0.280	0.010	-1.8	20.0
1,2-Dichloroethane-d4	0.064	0.058	0.010	-9.4	20.0
Toluene-d8	1.351	1.385	0.010	2.5	20.0
Bromofluorobenzene	0.514	0.496	0.010	-3.5	20.0

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Instrument ID: V6 Calibration Date: 05/20/2010 Time: 8:00
Lab File ID: V6H4661.D Init. Calib. Date(s): 05/19/2010 05/19/2010
EPA Sample No. (VSTD####): VSTD0506Z Init. Calib. Time(s): 11:06 14:18
Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)
Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.303	0.311	0.010	2.4	20.0
1,2-Dichloroethane-d4	0.045	0.047	0.010	4.4	20.0
Toluene-d8	1.219	1.231	0.010	1.0	20.0
Bromofluorobenzene	0.504	0.474	0.010	-5.8	20.0

7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988

Instrument ID: V1 Calibration Date: 05/25/2010 Time: 10:39

Lab File ID: V1L4082.D Init. Calib. Date(s): 05/22/2010 05/22/2010

EPA Sample No. (VSTD#####): VSTD0501B Init. Calib. Time(s): 13:06 15:51

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Methyl tert-butyl ether	0.875	0.831	0.010	-5.0	20.0
Benzene	1.315	1.324	0.010	0.7	20.0
Toluene	1.230	1.208	0.010	-1.7	20.0
Ethylbenzene	0.579	0.586	0.010	1.2	20.0
m,p-Xylene	0.733	0.720	0.010	-1.8	20.0
o-Xylene	0.718	0.713	0.010	-0.7	20.0
Xylene (Total)	0.728	0.718	0.010	-1.4	20.0

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
 Instrument ID: V1 Calibration Date: 05/25/2010 Time: 10:39
 Lab File ID: V1L4082.D Init. Calib. Date(s): 05/22/2010 05/22/2010
 EPA Sample No. (VSTD####): VSTD0501B Init. Calib. Time(s): 13:06 15:51
 Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)
 Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.286	0.281	0.010	-1.7	20.0
1,2-Dichloroethane-d4	0.064	0.061	0.010	-4.1	20.0
Toluene-d8	1.351	1.352	0.010	0.1	20.0
Bromofluorobenzene	0.514	0.501	0.010	-2.6	20.0

7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Instrument ID: V1 Calibration Date: 05/27/2010 Time: 8:16
Lab File ID: V1L4172.D Init. Calib. Date(s): 05/22/2010 05/22/2010
EPA Sample No. (VSTD####): VSTD0501D Init. Calib. Time(s): 13:06 15:51
Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)
Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Methyl tert-butyl ether	0.875	0.913	0.010	4.4	20.0
Benzene	1.315	1.520	0.010	15.6	20.0
Toluene	1.230	1.365	0.010	11.0	20.0
Ethylbenzene	0.579	0.650	0.010	12.1	20.0
m,p-Xylene	0.733	0.816	0.010	11.4	20.0
o-Xylene	0.718	0.797	0.010	11.0	20.0
Xylene (Total)	0.728	0.810	0.010	11.2	20.0

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Instrument ID: V1 Calibration Date: 05/27/2010 Time: 8:16
Lab File ID: V1L4172.D Init. Calib. Date(s): 05/22/2010 05/22/2010
EPA Sample No. (VSTD####): VSTD0501D Init. Calib. Time(s): 13:06 15:51
Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)
Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.286	0.280	0.010	-1.8	20.0
1,2-Dichloroethane-d4	0.064	0.058	0.010	-9.4	20.0
Toluene-d8	1.351	1.385	0.010	2.5	20.0
Bromofluorobenzene	0.514	0.496	0.010	-3.5	20.0

7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
 Instrument ID: V6 Calibration Date: 05/25/2010 Time: 8:35
 Lab File ID: V6H4801.D Init. Calib. Date(s): 05/19/2010 05/19/2010
 EPA Sample No. (VSTD####): VSTD0506F Init. Calib. Time(s): 11:06 14:18
 Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)
 Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Methyl tert-butyl ether	0.585	0.653	0.010	11.7	20.0
Benzene	0.765	0.733	0.010	-4.3	20.0
Toluene	0.397	0.355	0.010	-10.6	20.0
Ethylbenzene	0.455	0.452	0.010	-0.7	20.0
m,p-Xylene	0.559	0.552	0.010	-1.2	20.0
o-Xylene	0.515	0.532	0.010	3.5	20.0
Xylene (Total)	0.544	0.545	0.010	0.3	20.0

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
 Instrument ID: V6 Calibration Date: 05/25/2010 Time: 8:35
 Lab File ID: V6H4801.D Init. Calib. Date(s): 05/19/2010 05/19/2010
 EPA Sample No. (VSTD#####): VSTD0506F Init. Calib. Time(s): 11:06 14:18
 Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)
 Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.303	0.354	0.010	16.7	20.0
1,2-Dichloroethane-d4	0.045	0.050	0.010	10.8	20.0
Toluene-d8	1.219	1.191	0.010	-2.4	20.0
Bromofluorobenzene	0.504	0.520	0.010	3.3	20.0

7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
 Instrument ID: V6 Calibration Date: 05/25/2010 Time: 21:31
 Lab File ID: V6H4831.D Init. Calib. Date(s): 05/19/2010 05/19/2010
 EPA Sample No. (VSTD####): VSTD0506G Init. Calib. Time(s): 11:06 14:18
 Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)
 Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Methyl tert-butyl ether	0.585	0.520	0.010	-11.0	20.0
Benzene	0.765	0.665	0.010	-13.1	20.0
Toluene	0.397	0.338	0.010	-14.9	20.0
Ethylbenzene	0.455	0.426	0.010	-6.4	20.0
m,p-Xylene	0.559	0.540	0.010	-3.3	20.0
o-Xylene	0.515	0.526	0.010	2.3	20.0
Xylene (Total)	0.544	0.536	0.010	-1.5	20.0

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Instrument ID: V6 Calibration Date: 05/25/2010 Time: 21:31
Lab File ID: V6H4831.D Init. Calib. Date(s): 05/19/2010 05/19/2010
EPA Sample No. (VSTD####): VSTD0506G Init. Calib. Time(s): 11:06 14:18
Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)
Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.303	0.308	0.010	1.7	20.0
1,2-Dichloroethane-d4	0.045	0.036	0.010	-20.1	20.0
Toluene-d8	1.219	1.228	0.010	0.7	20.0
Bromofluorobenzene	0.504	0.472	0.010	-6.3	20.0

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Instrument ID: V6 Calibration Date: 05/26/2010 Time: 14:53
Lab File ID: V6H4850.D Init. Calib. Date(s): 05/26/2010 05/26/2010
EPA Sample No. (VSTD#####): VSTD0506I Init. Calib. Time(s): 9:46 12:03
Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)
Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.300	0.307	0.010	2.4	20.0
1,2-Dichloroethane-d4	0.037	0.042	0.010	11.6	20.0
Toluene-d8	1.278	1.241	0.010	-2.9	20.0
Bromofluorobenzene	0.448	0.473	0.010	5.7	20.0

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
Instrument ID: V6 Calibration Date: 05/26/2010 Time: 14:53
Lab File ID: V6H4850.D Init. Calib. Date(s): 05/26/2010 05/26/2010
EPA Sample No. (VSTD#####): VSTD0506I Init. Calib. Time(s): 9:46 12:03
Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)
Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.300	0.307	0.010	2.4	20.0
1,2-Dichloroethane-d4	0.037	0.042	0.010	11.6	20.0
Toluene-d8	1.278	1.241	0.010	-2.9	20.0
Bromofluorobenzene	0.448	0.473	0.010	5.7	20.0

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 05/22/2010 05/22/2010

EPA Sample No. (VSTD#####): VSTD0501B Date Analyzed: 05/25/2010

Lab File ID (Standard): V1L4082.D Time Analyzed: 10:39

Instrument ID: V1 Heated Purge: (Y/N) N

		IS1 (S1)		IS2 (S2)		IS3 (S3)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	462322	6.654	294395	10.356	123852	13.191
	UPPER LIMIT	924644	7.154	588790	10.856	247704	13.691
	LOWER LIMIT	231161	6.154	147198	9.856	61926	12.691
	SAMPLE NO.						
01	LCS-51819	447177	6.653	285565	10.345	122874	13.181
02	MB-51819	446786	6.662	274448	10.355	107954	13.190
03	06SB01-1416M E	436704	6.648	279223	10.340	131518	13.186
04	06SB01-1618M E	390712	6.637	248004	10.340	115370	13.185

IS1 () = Fluorobenzene

IS2 () = Chlorobenzene-d5

IS3 () = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of
internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of
internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles)
minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles)
minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 05/22/2010 05/22/2010

EPA Sample No. (VSTD#####): VSTD0501D Date Analyzed: 05/27/2010

Lab File ID (Standard): V1L4172.D Time Analyzed: 8:16

Instrument ID: V1 Heated Purge: (Y/N) N

		IS1 (S1)		IS2 (S2)		IS3 (S3)	
		AREA	# RT	AREA	# RT	AREA	# RT
	12 HOUR STD	470544	6.687	296080	10.37	123960	13.205
	UPPER LIMIT	941088	7.187	592160	10.87	247920	13.705
	LOWER LIMIT	235272	6.187	148040	9.87	61980	12.705
	SAMPLE NO.						
01	LCS-51880	432993	6.692	278204	10.375	114424	13.200
02	MB-51880	438916	6.682	263134	10.364	94460	13.200
03	06SB09-1214	468418	6.688	290018	10.380	134846	13.206
04	06SB14-0810	410801	6.678	263621	10.370	118805	13.196
05	06SB14-1012	386717	6.680	247800	10.372	113062	13.198

IS1 () = Fluorobenzene

IS2 () = Chlorobenzene-d5

IS3 () = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of
internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of
internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles)
minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles)
minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 05/19/2010 05/19/2010

EPA Sample No. (VSTD#####): VSTD0506Z Date Analyzed: 05/20/2010

Lab File ID (Standard): V6H4661.D Time Analyzed: 8:00

Instrument ID: V6 Heated Purge: (Y/N) Y

		IS1 (S1)		IS2 (S2)		IS3 (S3)	
		AREA	# RT	AREA	# RT	AREA	# RT
	12 HOUR STD	737591	5.709	593560	9.323	318093	12.297
	UPPER LIMIT	1475182	6.209	1187120	9.823	636186	12.797
	LOWER LIMIT	368796	5.209	296780	8.823	159047	11.797
	EPA SAMPLE NO.						
01	LCS-51697	783149	5.706	614705	9.326	341124	12.295
02	LCSD-51697	762118	5.710	615483	9.323	339537	12.298
03	MB-51697	692027	5.709	547425	9.329	268148	12.304
04	06TBS0-051310	667657	5.709	541333	9.329	280993	12.297
05	06SB01-1416	699778	5.706	565361	9.326	218289	12.313
06	06SB01-1618	710628	5.706	533880	9.326	158991 *	12.313
07	06SB02-1719	660834	5.710	588635	9.324	353488	12.299
08	06SB02-2325	696721	5.710	604333	9.329	336398	12.298
09	06SBDUP01	713528	5.710	586282	9.329	307686	12.298
10	06SB03-2224	735310	5.709	620128	9.328	330794	12.297
11	06SB03-1416	675808	5.709	565499	9.328	303186	12.297

IS1 () = Fluorobenzene

IS2 () = Chlorobenzene-d5

IS3 () = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 05/19/2010 05/19/2010

EPA Sample No. (VSTD####): VSTD0506F Date Analyzed: 05/25/2010

Lab File ID (Standard): V6H4801.D Time Analyzed: 8:35

Instrument ID: V6 Heated Purge: (Y/N) Y

	IS1 (S1)		IS2 (S2)		IS3 (S3)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	494398	5.71	429909	9.323	246515	12.298
UPPER LIMIT	988796	6.21	859818	9.823	493030	12.798
LOWER LIMIT	247199	5.21	214955	8.823	123258	11.798
EPA SAMPLE NO.						
01 LCS-51810	473159	5.709	415763	9.323	241081	12.298
02 LCSD-51810	452924	5.704	385431	9.324	219392	12.293
03 MB-51810	460452	5.709	375947	9.329	139497	12.303
04 06TBSO-051910	386304	5.710	328813	9.330	127563	12.305
05 06SB06-1517	323193	5.709	278225	9.329	123963	12.310
06 06SB06-2224	557429	5.710	499211	9.330	268155	12.299
07 06SB07-1214	967793	5.703	770023	9.323	349404	12.298
08 06SB08-1214	466298	5.706	407521	9.325	217708	12.300
09 06SB08-1416	431576	5.706	375243	9.326	201952	12.295
10 06SB09-1416	361893	5.706	344184	9.325	173418	12.306
11 06SB11-0810	454398	5.709	416684	9.323	219934	12.298
12 06SB11-1012	527690	5.710	444216	9.330	185478	12.298
13 06SB12-1214	605946	5.715	513071	9.329	209336	12.303
14 06SB12-1416	554732	5.711	479587	9.330	200868	12.299
15 06SB13-1012	529637	5.710	444948	9.330	179081	12.304

IS1 () = Fluorobenzene

IS2 () = Chlorobenzene-d5

IS3 () = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 05/19/2010 05/19/2010

EPA Sample No. (VSTD####): VSTD0506F Date Analyzed: 05/25/2010

Lab File ID (Standard): V6H4801.D Time Analyzed: 8:35

Instrument ID: V6 Heated Purge: (Y/N) Y

	IS1 (S1)		IS2 (S2)		IS3 (S3)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	494398	5.71	429909	9.323	246515	12.298
UPPER LIMIT	988796	6.21	859818	9.823	493030	12.798
LOWER LIMIT	247199	5.21	214955	8.823	123258	11.798
EPA SAMPLE NO.						
16 06SB13-1214	516287	5.710	433539	9.330	161453	12.304

IS1 () = Fluorobenzene

IS2 () = Chlorobenzene-d5

IS3 () = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of
internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of
internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles)
minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles)
minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8A - FORM VIII VOA
VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988
 GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 05/19/2010 05/19/2010
 EPA Sample No. (VSTD####): VSTD0506G Date Analyzed: 05/25/2010
 Lab File ID (Standard): V6H4831.D Time Analyzed: 21:31
 Instrument ID: V6 Heated Purge: (Y/N) Y

	IS1 (S1)		IS2 (S2)		IS3 (S3)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	496562	5.705	420074	9.325	236244	12.294
UPPER LIMIT	993124	6.205	840148	9.825	472488	12.794
LOWER LIMIT	248281	5.205	210037	8.825	118122	11.794
EPA SAMPLE NO.						
01 LCS-51840	495033	5.706	422376	9.325	242673	12.294
02 MB-51840	515243	5.707	431805	9.326	196817	12.301
03 06SB07-1416	593538	5.710	465686	9.330	205486	12.298

IS1 () = Fluorobenzene

IS2 () = Chlorobenzene-d5

IS3 () = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of
internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of
internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles)
minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles)
minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J0988 Mod. Ref No.: _____ SDG No.: SJ0988

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 05/26/2010 05/26/2010

EPA Sample No. (VSTD#####): VSTD0506I Date Analyzed: 05/26/2010

Lab File ID (Standard): V6H4850.D Time Analyzed: 14:53

Instrument ID: V6 Heated Purge: (Y/N) Y

		IS1 (S1)		IS2 (S2)		IS3 (S3)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	574089	5.705	463798	9.325	242856	12.299
	UPPER LIMIT	1148178	6.205	927596	9.825	485712	12.799
	LOWER LIMIT	287045	5.205	231899	8.825	121428	11.799
	EPA SAMPLE NO.						
01	LCS-51854	544887	5.700	439641	9.326	230297	12.295
02	MB-51854	565393	5.713	432208	9.327	130022	12.301
03	06SB06-2224M S	489303	5.709	406569	9.323	188672	12.297
04	06SB06-2224M SD	494438	5.710	411397	9.323	194671	12.298

IS1 () = Fluorobenzene

IS2 () = Chlorobenzene-d5

IS3 () = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of
internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of
internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles)
minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles)
minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

Report Date:
30-Jun-10 12:23



- ☒ Final Report
☐ Re-Issued Report
☐ Revised Report

A DIVISION OF SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY

Laboratory Report

Tetra Tech NUS Inc.
661 Andersen Drive, Foster Plaza #7
Pittsburgh, PA 15220

Work Order: J1056
Project: CTO-WE56, NSB New London
Project #:

Attn: Tobrena Skeen

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
J1056-01	06SB17-1012	Soil	18-May-10 10:18	20-May-10 15:55
J1056-02	06SB17-0810	Soil	18-May-10 10:05	20-May-10 15:55
J1056-03	06SB16-2022	Soil	17-May-10 15:52	20-May-10 15:55
J1056-04	06SB16-2628	Soil	17-May-10 16:15	20-May-10 15:55
J1056-05	06RB-051810	Aqueous	18-May-10 15:50	20-May-10 15:55
J1056-06	06TBAQ-051810	Aqueous	18-May-10 15:50	20-May-10 15:55
J1056-07	06SB15-0810	Soil	20-May-10 11:20	22-May-10 12:25
J1056-08	06SB15-1012	Soil	20-May-10 11:25	22-May-10 12:25
J1056-09	06SB05-1416	Soil	19-May-10 07:40	22-May-10 12:25
J1056-10	06SB05-1618	Soil	19-May-10 07:55	22-May-10 12:25
J1056-11	06SB20-0103	Soil	19-May-10 09:10	22-May-10 12:25
J1056-12	06SB20-0406	Soil	19-May-10 09:25	22-May-10 12:25
J1056-13	06SB10-0810	Soil	20-May-10 09:45	22-May-10 12:25
J1056-14	06SB10-1214	Soil	20-May-10 09:55	22-May-10 12:25
J1056-15	06SBDUP02	Soil	20-May-10 00:00	22-May-10 12:25
J1056-16	06TBSO-DS2110	Soil	21-May-10 07:00	22-May-10 12:25
J1056-17	06SB04-1214	Soil	19-May-10 15:05	22-May-10 12:25
J1056-18	06SB04-1618	Soil	19-May-10 15:25	22-May-10 12:25
J1056-19	06SB19-0406	Soil	19-May-10 07:55	22-May-10 12:25
J1056-20	06SB19-0810	Soil	19-May-10 08:15	22-May-10 12:25
J1056-21	06SB18-0810	Soil	18-May-10 14:01	22-May-10 12:25
J1056-22	06SB18-1012	Soil	18-May-10 14:10	22-May-10 12:25

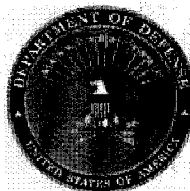
I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. The results relate only to the samples(s) as received.

All applicable NELAC or USEPA CLP requirements have been met.

Mitkem Laboratories is accredited under the National Environmental Laboratory Approval Program (NELAP) and is certified by several States, as well as USEPA and US Department of Defense. The current list of our laboratory approvals and certifications is available on the Certifications page our web site at www.mitkem.com.

Please contact the Laboratory or Technical Director at 401-732-3400 with any questions regarding the data contained in the laboratory report.

Department of Defense	N/A
Connecticut	PH-0153
Delaware	N/A
Maine	2007037
Massachusetts	M-RI907
New Hampshire	2631
New Jersey	RI001
New York	11522
North Carolina	581
Pennsylvania	68-00520
Rhode Island	LAI00301
Texas	T104704422-08-TX
USDA	P330-08-00023
USEPA - ISM	EP-W-09-039
USEPA - SOM	EP-W-05-030



Authorized by:

Yihai Ding
Laboratory Director

Technical Reviewer's Initials:



*** Data Summary Pack ***

Analytical Data Package for Tetra Tech NUS, Inc.

Client Project: CTO-WE56, NSB New London

SDG# SJ1056

Mitkem Workorder ID: J1056

June 30, 2010

Prepared For: Tetra Tech NUS, Inc.
55 Jonspin Road
Wilmington, MA 01887
Attn: Ms. Tobrena Skeen

Prepared By: Mitkem Laboratories
175 Metro Center Boulevard
Warwick, RI 02886
(401) 732-3400

SDG Narrative

Mitkem Laboratories submits the enclosed data package in response to Tetra Tech NUS Inc.'s CTO-WE56, NSB New London project. Under this deliverable, analysis results are presented for twenty-two samples that were received at Mitkem on May 20 and May 22, 2010. Samples were analyzed per instructions in the chain of custody form.

The analyses were performed according to EPA SW-846 methods and reported in CLP-type format for Level 4 deliverable.

The following observation and/or deviations are observed for the following analyses:

1. Overall Observation:

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required. Manual integrations are coded to provide the data reviewer justification for such action. The codes are labeled on the ion chromatogram signal (GC/MS signal) and chromatogram for GC based analysis as follows:

- M1 peak tailing or fronting.
- M2 peak co-elution.
- M3 rising or falling baseline.
- M4 retention time shift.
- M5 miscellaneous – under this category, the justification is explained.
- M6 software did not integrate peak
- M7 partial peak integration

The enclosed report includes the originals of all data with the exception of logbook pages and certain initial calibrations. Photocopies of logbook pages are included, with the originals maintained on file at the laboratory. The originals of initial calibrations that are shared among several cases are maintained on file at the laboratory, with photocopies included in the data package.

2. Volatile Analysis:

Samples were analyzed by SW846 Method 8260.

Surrogate recovery: percent recoveries were within the QC limits.

Laboratory control sample/laboratory control sample duplicate: spike recoveries and replicate RPDs were within the QC limits.

Matrix spike/matrix spike duplicate: duplicate matrix spikes were performed on sample 06SB16-2628. Spike recoveries and replicate RPDs were within the QC limits. The matrix spike and matrix spike duplicate were performed outside of hold time.

Sample analysis: sample 06SB18-0810 was analyzed outside of hold time. The initial analysis was performed within hold time, but was a bad purge. All compounds in the initial calibration verification were within 80 – 120% of the initial calibration. No other unusual observation was made for the analysis.

3. CT ETPH Analysis:

The samples were analyzed for extractable Total Petroleum Hydrocarbons by CT ETPH.

Surrogate recovery: spike recoveries were within the QC limits with the exception of marginally low recovery of 5a-androstane in samples 06SB16-2022, 06SBDUP02 and 06SB19-0406 and low recovery of ortho-terphenyl and 5a-androstane in lab control sample LCS-51853.

Lab control sample/lab control sample duplicate: spike recovery and percent RPD were within the QC limits.

Matrix spike/matrix spike duplicate: duplicate matrix spikes were performed on sample 06SB16-2628. Spike recovery and percent RPD were within the QC limits. Please note that the matrix spike and matrix spike duplicate were performed one day outside of hold time.

Sample analysis: sample 06SB16-2628 was extracted one day outside of hold time. Samples 06SB17-1012, 06SB17-0810 and 06-SB16-2022 were re-extracted outside of hold time. The initial extraction was performed within hold time, but the associated laboratory control sample (LCS-51853) had non-compliant surrogate recoveries. The initial calibration verification was within 80 – 120% of the initial calibration. No other unusual occurrences were noted during sample analysis.

5. Total Organic Carbon Analysis:

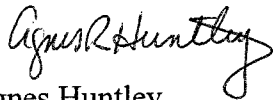
Samples were analyzed for total organic carbon by method Walkley-Black.

Lab control sample: spike recovery was within the QC limits for the lab control samples for total organic carbon.

Sample analysis: no unusual observations were made during sample analyses.

All pages in this report have been numbered, starting with the title page and ending with a page saying only "Last Page of Data Report".

I certify that this data package is in compliance, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

A handwritten signature in cursive script, appearing to read "Agnes R. Huntley".

Agnes Huntley
CLP Project Manager
06/30/10

WorkOrder: J1056**05/24/2010 09:19****Mitkem Laboratories**

Client ID: TETRA_NAVY

Project: CTO-WE56, NSB New London

WO Name: CTO-WE56, NSB New London

Location: CTO-WE56_NSB-NLON,

Comments: HC + 2CDs to Tobrena.

Case:

SDG:

HC Due: 06/14/10

Fax Due:

Fax Report: ☐Special Program: DoD

EDD: TTNUS

PO: WR 8-CTO-WE56, MA1045445, 112G02634

Report Level: LEVEL 4

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
J1056-01A	06SB17-1012	05/18/2010 10:18	05/20/2010	Soil	CTETPH_S	/					J2
J1056-01A	06SB17-1012	05/18/2010 10:18	05/20/2010	Soil	PMoist	/					J2
J1056-01B	06SB17-1012	05/18/2010 10:18	05/20/2010	Soil	SW8260_LOW_S	/ MBTEX,				Y	VOA
J1056-01C	06SB17-1012	05/18/2010 10:18	05/20/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA
J1056-02A	06SB17-0810	05/18/2010 10:05	05/20/2010	Soil	CTETPH_S	/					J2
J1056-02A	06SB17-0810	05/18/2010 10:05	05/20/2010	Soil	PMoist	/					J2
J1056-02B	06SB17-0810	05/18/2010 10:05	05/20/2010	Soil	SW8260_LOW_S	/ MBTEX,				Y	VOA
J1056-02C	06SB17-0810	05/18/2010 10:05	05/20/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA
J1056-03A	06SB16-2022	05/17/2010 15:52	05/20/2010	Soil	CTETPH_S	/					J2
J1056-03A	06SB16-2022	05/17/2010 15:52	05/20/2010	Soil	PMoist	/				Y	J2
J1056-03B	06SB16-2022	05/17/2010 15:52	05/20/2010	Soil	SW8260_LOW_S	/ MBTEX,				Y	VOA
J1056-03C	06SB16-2022	05/17/2010 15:52	05/20/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA
J1056-04A	06SB16-2628	05/17/2010 16:15	05/20/2010	Soil	CTETPH_S	/			Y		J2
J1056-04A	06SB16-2628	05/17/2010 16:15	05/20/2010	Soil	PMoist	/			Y		J2
J1056-04B	06SB16-2628	05/17/2010 16:15	05/20/2010	Soil	SW8260_LOW_S	/ MBTEX,			Y	Y	VOA
J1056-04C	06SB16-2628	05/17/2010 16:15	05/20/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA
J1056-05A	06RB-051810	05/18/2010 15:50	05/20/2010	Aqueous	SW8260_W	/ MBTEX,				Y	VOA
J1056-05B	06RB-051810	05/18/2010 15:50	05/20/2010	Aqueous	CTETPH_W	/					J2
J1056-06A	06TBAQ-051810	05/18/2010 15:50	05/20/2010	Aqueous	SW8260_W	/ MBTEX,				Y	VOA

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

WorkOrder: J1056**05/24/2010 09:19****Mitkem Laboratories****Client ID:** TETRA_NAVY**Project:** CTO-WE56, NSB New London**WO Name:** CTO-WE56, NSB New London**Location:** CTO-WE56, NSB-NLON,**Comments:** HC + 2CDs to Tobrena.**Case:****SDG:****HC Due:** 06/14/10**Fax Due:****Fax Report:** ☐**PO:** WR 8-CTO-WE56, MA1045445, 112G02634**Report Level:** LEVEL 4**Special Program:** DoD**EDD:** TTNUS

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
J1056-07A	06SB15-0810	05/20/2010 11:20	05/22/2010	Soil	CTETPH_S	/					J2
J1056-07A	06SB15-0810	05/20/2010 11:20	05/22/2010	Soil	PMoist	/					J2
J1056-07B	06SB15-0810	05/20/2010 11:20	05/22/2010	Soil	SW8260_LOW_S	/ MBTEX,				Y	VOA
J1056-07C	06SB15-0810	05/20/2010 11:20	05/22/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA
J1056-08A	06SB15-1012	05/20/2010 11:25	05/22/2010	Soil	CTETPH_S	/					J2
J1056-08A	06SB15-1012	05/20/2010 11:25	05/22/2010	Soil	PMoist	/					J2
J1056-08B	06SB15-1012	05/20/2010 11:25	05/22/2010	Soil	SW8260_LOW_S	/ MBTEX,				Y	VOA
J1056-08C	06SB15-1012	05/20/2010 11:25	05/22/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA
J1056-09A	06SB05-1416	05/19/2010 07:40	05/22/2010	Soil	CTETPH_S	/					J2
J1056-09A	06SB05-1416	05/19/2010 07:40	05/22/2010	Soil	PMoist	/					J2
J1056-09B	06SB05-1416	05/19/2010 07:40	05/22/2010	Soil	SW8260_LOW_S	/ MBTEX,				Y	VOA
J1056-09C	06SB05-1416	05/19/2010 07:40	05/22/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA
J1056-10A	06SB05-1618	05/19/2010 07:55	05/22/2010	Soil	CTETPH_S	/					J2
J1056-10A	06SB05-1618	05/19/2010 07:55	05/22/2010	Soil	PMoist	/					J2
J1056-10B	06SB05-1618	05/19/2010 07:55	05/22/2010	Soil	SW8260_LOW_S	/ MBTEX,				Y	VOA
J1056-10C	06SB05-1618	05/19/2010 07:55	05/22/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA
J1056-11A	06SB20-0103	05/19/2010 09:10	05/22/2010	Soil	CTETPH_S	/					J2
J1056-11A	06SB20-0103	05/19/2010 09:10	05/22/2010	Soil	PMoist	/					J2
J1056-11A	06SB20-0103	05/19/2010 09:10	05/22/2010	Soil	WB_TOC_MGKG_S	/					J2

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

WorkOrder: J1056**05/24/2010 09:19****Mitkem Laboratories**

Client ID: TETRA_NAVY

Project: CTO-WE56, NSB New London

WO Name: CTO-WE56, NSB New London

Location: CTO-WE56_NSB-NLON,

Comments: HC + 2CDs to Tobrena.

Case:

SDG:

HC Due: 06/14/10

Fax Due:

Fax Report: ☐

PO: WR 8-CTO-WE56, MA1045445, 112G02634

Report Level: LEVEL 4

Special Program: DoD

EDD: TTNUS

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
J1056-11B	06SB20-0103	05/19/2010 09:10	05/22/2010	Soil	SW8260_LOW_S	/ MBTEX,				Y	VOA
J1056-11C	06SB20-0103	05/19/2010 09:10	05/22/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA
J1056-12A	06SB20-0406	05/19/2010 09:25	05/22/2010	Soil	CTETPH_S	/					J2
J1056-12A	06SB20-0406	05/19/2010 09:25	05/22/2010	Soil	PMoist	/					J2
J1056-12B	06SB20-0406	05/19/2010 09:25	05/22/2010	Soil	SW8260_LOW_S	/ MBTEX,				Y	VOA
J1056-12C	06SB20-0406	05/19/2010 09:25	05/22/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA
J1056-13A	06SB10-0810	05/20/2010 09:45	05/22/2010	Soil	CTETPH_S	/					J2
J1056-13A	06SB10-0810	05/20/2010 09:45	05/22/2010	Soil	PMoist	/					J2
J1056-13B	06SB10-0810	05/20/2010 09:45	05/22/2010	Soil	SW8260_LOW_S	/ MBTEX,				Y	VOA
J1056-13C	06SB10-0810	05/20/2010 09:45	05/22/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA
J1056-14A	06SB10-1214	05/20/2010 09:55	05/22/2010	Soil	CTETPH_S	/					J2
J1056-14A	06SB10-1214	05/20/2010 09:55	05/22/2010	Soil	PMoist	/					J2
J1056-14B	06SB10-1214	05/20/2010 09:55	05/22/2010	Soil	SW8260_LOW_S	/ MBTEX,				Y	VOA
J1056-14C	06SB10-1214	05/20/2010 09:55	05/22/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA
J1056-15A	06SBDUP02	05/20/2010 00:00	05/22/2010	Soil	CTETPH_S	/					J2
J1056-15A	06SBDUP02	05/20/2010 00:00	05/22/2010	Soil	PMoist	/					J2
J1056-15B	06SBDUP02	05/20/2010 00:00	05/22/2010	Soil	SW8260_LOW_S	/ MBTEX,				Y	VOA
J1056-15C	06SBDUP02	05/20/2010 00:00	05/22/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA
J1056-16B	06TBSO-DS2110	05/21/2010 07:00	05/22/2010	Soil	SW8260_LOW_S	USE PMOIST = 0, TRIP BLANK / MBTEX,				Y	VOA

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

WorkOrder: J1056**05/24/2010 09:19****Mitkem Laboratories**

Client ID: TETRA_NAVY

Project: CTO-WE56, NSB New London

WO Name: CTO-WE56, NSB New London

Location: CTO-WE56_NSB-NLON,

Comments: HC + 2CDs to Tobrena.

Case:

SDG:

HC Due: 06/14/10

Fax Due:

Fax Report: ☐

PO: WR 8-CTO-WE56, MA1045445, 112G02634

Report Level: LEVEL 4

Special Program: DoD

EDD: TTNUS

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
J1056-16C	06TBSO-DS2110	05/21/2010 07:00	05/22/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA
J1056-17A	06SB04-1214	05/19/2010 15:05	05/22/2010	Soil	CTETPH_S	/					J2
J1056-17A	06SB04-1214	05/19/2010 15:05	05/22/2010	Soil	PMoist	/					J2
J1056-17B	06SB04-1214	05/19/2010 15:05	05/22/2010	Soil	SW8260_LOW_S	/ MBTEX,				Y	VOA
J1056-17C	06SB04-1214	05/19/2010 15:05	05/22/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA
J1056-18A	06SB04-1618	05/19/2010 15:25	05/22/2010	Soil	CTETPH_S	/					J2
J1056-18A	06SB04-1618	05/19/2010 15:25	05/22/2010	Soil	PMoist	/					J2
J1056-18B	06SB04-1618	05/19/2010 15:25	05/22/2010	Soil	SW8260_LOW_S	/ MBTEX,				Y	VOA
J1056-18C	06SB04-1618	05/19/2010 15:25	05/22/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA
J1056-19A	06SB19-0406	05/19/2010 07:55	05/22/2010	Soil	CTETPH_S	/					J2
J1056-19A	06SB19-0406	05/19/2010 07:55	05/22/2010	Soil	PMoist	/					J2
J1056-19B	06SB19-0406	05/19/2010 07:55	05/22/2010	Soil	SW8260_LOW_S	/ MBTEX,				Y	VOA
J1056-19C	06SB19-0406	05/19/2010 07:55	05/22/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA
J1056-20A	06SB19-0810	05/19/2010 08:15	05/22/2010	Soil	CTETPH_S	/					J2
J1056-20A	06SB19-0810	05/19/2010 08:15	05/22/2010	Soil	PMoist	/					J2
J1056-20B	06SB19-0810	05/19/2010 08:15	05/22/2010	Soil	SW8260_LOW_S	/ MBTEX,				Y	VOA
J1056-20C	06SB19-0810	05/19/2010 08:15	05/22/2010	Soil	SW8260_MED_S	/ MBTEX,		Y	Y	Y	VOA
J1056-21A	06SB18-0810	05/18/2010 14:01	05/22/2010	Soil	CTETPH_S	/					J2
J1056-21A	06SB18-0810	05/18/2010 14:01	05/22/2010	Soil	PMoist	/					J2

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

WorkOrder: J1056

05/24/2010 09:19

Mitkem Laboratories

Client ID: TETRA_NAVY

Project: CTO-WE56, NSB New London

WO Name: CTO-WE56, NSB New London

Location: CTO-WE56_NSB-NLON,

Comments: HC + 2CDs to Tobrena.

Case:

SDG:

HC Due: 06/14/10

Fax Due:

Fax Report: ☐

PO: WR 8-CTO-WE56, MA1045445, 112G02634

Report Level: LEVEL 4

Special Program: DoD

EDD: TTNUS

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
J1056-21B	06SB18-0810	05/18/2010 14:01	05/22/2010	Soil	SW8260_LOW_S	/ MBTEX,					Y VOA
J1056-21C	06SB18-0810	05/18/2010 14:01	05/22/2010	Soil	SW8260_MED_S	/ MBTEX,					Y VOA
J1056-22A	06SB18-1012	05/18/2010 14:10	05/22/2010	Soil	CTETPH_S	/					J2
J1056-22A	06SB18-1012	05/18/2010 14:10	05/22/2010	Soil	PMoist	/					J2
J1056-22B	06SB18-1012	05/18/2010 14:10	05/22/2010	Soil	SW8260_LOW_S	/ MBTEX,					Y VOA
J1056-22C	06SB18-1012	05/18/2010 14:10	05/22/2010	Soil	SW8260_MED_S	/ MBTEX,					Y VOA

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

Mitkem Laboratories

Date: 20-Jun-10

Client: Tetra Tech NUS Inc.
Client Sample ID: 06SB17-1012
Lab ID: J1056-01

Project: CTO-WE56, NSB New London
Collection Date: 05/18/10 10:18

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		26	mg/Kg		1 06/14/2010 0:36	51853
Surrogate: ortho-Terphenyl	67.1		50-150	%REC		1 06/14/2010 0:36	51853
Surrogate: 5a-Androstane	67.7		58-115	%REC		1 06/14/2010 0:36	51853

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.
Client Sample ID: 06SB17-1012
Lab ID: J1056-01

Project: CTO-WE56, NSB New London
Collection Date: 05/18/10 10:18

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		26	mg/Kg		1 06/24/2010 5:14	52512
Surrogate: ortho-Terphenyl	62.9		50-150	%REC		1 06/24/2010 5:14	52512
Surrogate: 5a-Androstane	63.0		58-115	%REC		1 06/24/2010 5:14	52512

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 20-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB17-0810

Lab ID: J1056-02

Project: CTO-WE56, NSB New London

Collection Date: 05/18/10 10:05

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		28	mg/Kg		1 06/14/2010 1:12	51853
Surrogate: ortho-Terphenyl	61.5		50-150	%REC		1 06/14/2010 1:12	51853
Surrogate: 5a-Androstane	59.8		58-115	%REC		1 06/14/2010 1:12	51853

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB17-0810

Lab ID: J1056-02

Project: CTO-WE56, NSB New London

Collection Date: 05/18/10 10:05

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		28	mg/Kg		1 06/24/2010 5:50	52512
Surrogate: ortho-Terphenyl	70.9		50-150	%REC		1 06/24/2010 5:50	52512
Surrogate: 5a-Androstane	72.0		58-115	%REC		1 06/24/2010 5:50	52512

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 20-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB16-2022

Lab ID: J1056-03

Project: CTO-WE56, NSB New London

Collection Date: 05/17/10 15:52

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		28	mg/Kg		1 06/19/2010 0:13	51853
Surrogate: ortho-Terphenyl	51.4		50-150	%REC		1 06/19/2010 0:13	51853
Surrogate: 5a-Androstane	54.1	S	58-115	%REC		1 06/19/2010 0:13	51853

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 29-Jun-10

Client: Tetra Tech NUS Inc.
Client Sample ID: 06SB16-2022
Lab ID: J1056-03

Project: CTO-WE56, NSB New London
Collection Date: 05/17/10 15:52

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		28	mg/Kg		1 06/24/2010 7:37	52512
Surrogate: ortho-Terphenyl	64.1		50-150	%REC		1 06/24/2010 7:37	52512
Surrogate: 5a-Androstane	64.8		58-115	%REC		1 06/24/2010 7:37	52512

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories**Date:** 20-Jun-10**Client:** Tetra Tech NUS Inc.**Client Sample ID:** 06SB16-2628**Lab ID:** J1056-04**Project:** CTO-WE56, NSB New London**Collection Date:** 05/17/10 16:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		26	mg/Kg		1 06/18/2010 4:16	51920
Surrogate: ortho-Terphenyl	60.3		50-150	%REC		1 06/18/2010 4:16	51920
Surrogate: 5a-Androstane	58.5		58-115	%REC		1 06/18/2010 4:16	51920

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 20-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06RB-051810

Lab ID: J1056-05

Project: CTO-WE56, NSB New London

Collection Date: 05/18/10 15:50

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_W
Extractable Total Petroleum Hydrocarbon	ND		0.035	mg/L		1 06/10/2010 8:59	51814
Surrogate: ortho-Terphenyl	62.0		50-150	%REC		1 06/10/2010 8:59	51814
Surrogate: 5a-Androstane	62.4		30-110	%REC		1 06/10/2010 8:59	51814

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 20-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB15-0810

Lab ID: J1056-07

Project: CTO-WE56, NSB New London

Collection Date: 05/20/10 11:20

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		30	mg/Kg		1 06/18/2010 7:36	51920
Surrogate: ortho-Terphenyl	65.2		50-150	%REC		1 06/18/2010 7:36	51920
Surrogate: 5a-Androstane	63.0		58-115	%REC		1 06/18/2010 7:36	51920

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 20-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB15-1012

Lab ID: J1056-08

Project: CTO-WE56, NSB New London

Collection Date: 05/20/10 11:25

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID				CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND	29 mg/Kg	1 06/18/2010 8:13	51920
Surrogate: ortho-Terphenyl	64.4	50-150 %REC	1 06/18/2010 8:13	51920
Surrogate: 5a-Androstane	61.5	58-115 %REC	1 06/18/2010 8:13	51920

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories**Date:** 20-Jun-10**Client:** Tetra Tech NUS Inc.**Client Sample ID:** 06SB05-1416**Lab ID:** J1056-09**Project:** CTO-WE56, NSB New London**Collection Date:** 05/19/10 7:40

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		29	mg/Kg		1 06/18/2010 18:58	51920
Surrogate: ortho-Terphenyl	71.4		50-150	%REC		1 06/18/2010 18:58	51920
Surrogate: 5a-Androstane	68.8		58-115	%REC		1 06/18/2010 18:58	51920

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 20-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB05-1618

Lab ID: J1056-10

Project: CTO-WE56, NSB New London

Collection Date: 05/19/10 7:55

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		29	mg/Kg		1 06/18/2010 9:54	51920
Surrogate: ortho-Terphenyl	73.2		50-150	%REC		1 06/18/2010 9:54	51920
Surrogate: 5a-Androstane	70.7		58-115	%REC		1 06/18/2010 9:54	51920

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 20-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB20-0103

Lab ID: J1056-11

Project: CTO-WE56, NSB New London

Collection Date: 05/19/10 9:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	98		27	mg/Kg		1 06/18/2010 19:35	51920
Surrogate: ortho-Terphenyl	64.1		50-150	%REC		1 06/18/2010 19:35	51920
Surrogate: 5a-Androstane	64.3		58-115	%REC		1 06/18/2010 19:35	51920

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 20-Jun-10

Client: Tetra Tech NUS Inc.
Client Sample ID: 06SB20-0406
Lab ID: J1056-12

Project: CTO-WE56, NSB New London
Collection Date: 05/19/10 9:25

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	150		26	mg/Kg		1 06/18/2010 11:12	51920
Surrogate: ortho-Terphenyl	73.7		50-150	%REC		1 06/18/2010 11:12	51920
Surrogate: 5a-Androstane	68.5		58-115	%REC		1 06/18/2010 11:12	51920

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 20-Jun-10

Client: Tetra Tech NUS Inc.
Client Sample ID: 06SB10-0810
Lab ID: J1056-13

Project: CTO-WE56, NSB New London
Collection Date: 05/20/10 9:45

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		29	mg/Kg		1 06/18/2010 11:49	51920
Surrogate: ortho-Terphenyl	80.3		50-150	%REC		1 06/18/2010 11:49	51920
Surrogate: 5a-Androstane	77.6		58-115	%REC		1 06/18/2010 11:49	51920

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 20-Jun-10

Client: Tetra Tech NUS Inc.
Client Sample ID: 06SB10-1214
Lab ID: J1056-14

Project: CTO-WE56, NSB New London
Collection Date: 05/20/10 9:55

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		27	mg/Kg		1 06/18/2010 12:28	51920
Surrogate: ortho-Terphenyl	81.6		50-150	%REC		1 06/18/2010 12:28	51920
Surrogate: 5a-Androstane	78.8		58-115	%REC		1 06/18/2010 12:28	51920

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 20-Jun-10

Client: Tetra Tech NUS Inc.
Client Sample ID: 06SBDUP02
Lab ID: J1056-15

Project: CTO-WE56, NSB New London
Collection Date: 05/20/10 0:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		27	mg/Kg		1 06/18/2010 13:06	51920
Surrogate: ortho-Terphenyl	54.4		50-150	%REC		1 06/18/2010 13:06	51920
Surrogate: 5a-Androstane	53.5	S	58-115	%REC		1 06/18/2010 13:06	51920

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 20-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB04-1214

Lab ID: J1056-17

Project: CTO-WE56, NSB New London

Collection Date: 05/19/10 15:05

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		24	mg/Kg		1 06/18/2010 13:45	51920
Surrogate: ortho-Terphenyl	61.2		50-150	%REC		1 06/18/2010 13:45	51920
Surrogate: 5a-Androstane	59.5		58-115	%REC		1 06/18/2010 13:45	51920

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0027

Mitkem Laboratories

Date: 20-Jun-10

Client: Tetra Tech NUS Inc.
Client Sample ID: 06SB04-1618
Lab ID: J1056-18

Project: CTO-WE56, NSB New London
Collection Date: 05/19/10 15:25

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		27	mg/Kg		1 06/18/2010 15:49	51920
Surrogate: ortho-Terphenyl	69.1		50-150	%REC		1 06/18/2010 15:49	51920
Surrogate: 5a-Androstane	66.8		58-115	%REC		1 06/18/2010 15:49	51920

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 20-Jun-10

Client: Tetra Tech NUS Inc.
Client Sample ID: 06SB19-0406
Lab ID: J1056-19

Project: CTO-WE56, NSB New London
Collection Date: 05/19/10 7:55

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		27	mg/Kg		1 06/18/2010 16:27	51920
Surrogate: ortho-Terphenyl	58.5		50-150	%REC		1 06/18/2010 16:27	51920
Surrogate: 5a-Androstane	57.3	S	58-115	%REC		1 06/18/2010 16:27	51920

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 20-Jun-10

Client: Tetra Tech NUS Inc.
Client Sample ID: 06SB19-0810
Lab ID: J1056-20

Project: CTO-WE56, NSB New London
Collection Date: 05/19/10 8:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		26	mg/Kg		1 06/18/2010 17:04	51920
Surrogate: ortho-Terphenyl	70.8		50-150	%REC		1 06/18/2010 17:04	51920
Surrogate: 5a-Androstane	69.1		58-115	%REC		1 06/18/2010 17:04	51920

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 20-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB18-0810

Lab ID: J1056-21

Project: CTO-WE56, NSB New London

Collection Date: 05/18/10 14:01

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID				CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND	26 mg/Kg	1 06/18/2010 17:43	51920
Surrogate: ortho-Terphenyl	73.0	50-150 %REC	1 06/18/2010 17:43	51920
Surrogate: 5a-Androstane	70.7	58-115 %REC	1 06/18/2010 17:43	51920

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories

Date: 20-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB18-1012

Lab ID: J1056-22

Project: CTO-WE56, NSB New London

Collection Date: 05/18/10 14:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_S
Extractable Total Petroleum Hydrocarbon	ND		26	mg/Kg		1 06/18/2010 18:21	51920
Surrogate: ortho-Terphenyl	73.1		50-150	%REC		1 06/18/2010 18:21	51920
Surrogate: 5a-Androstane	71.5		58-115	%REC		1 06/18/2010 18:21	51920

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

CLIENT: Tetra Tech NUS Inc.

Work Order: J1056

Project: CTO-WE56, NSB New London

ANALYTICAL QC SUMMARY REPORT

CTETPH_W

CT ETPH -- CT ETPH by GC-FID

Sample ID: MB-51814	SampType: MBLK	TestCode: CTETPH_W	Prep Date: 05/25/10 9:44	Run ID: F1_100609A
Client ID: MB-51814	Batch ID: 51814	Units: mg/L	Analysis Date: 06/10/10 7:13	SeqNo: 1319864
Analyte	Result	MDL	SPK value	SPK Ref Val
Extractable Total Petroleum	ND	0.0035	0.035	RPD Ref Val
Hydrocarbon				%RPD RPDLimit
Surrogate: ortho-Terphenyl	0.02770	0	0.04000	69.2 50 150 0
Surrogate: 5a-Androstane	0.02620	0	0.04000	65.5 30 110 0

Sample ID: LCS-51814	SampType: LCS	TestCode: CTETPH_W	Prep Date: 05/25/10 9:44	Run ID: F1_100609A
Client ID: LCS-51814	Batch ID: 51814	Units: mg/L	Analysis Date: 06/10/10 7:48	SeqNo: 1319865
Analyte	Result	MDL	SPK value	SPK Ref Val
Extractable Total Petroleum	3.123	0.0035	5.000	62.5 60 140 0
Hydrocarbon				
Surrogate: ortho-Terphenyl	0.02643	0	0.04000	66.1 50 150 0
Surrogate: 5a-Androstane	0.02621	0	0.04000	65.5 30 110 0

Sample ID: LCSD-51814	SampType: LCSD	TestCode: CTETPH_W	Prep Date: 05/25/10 9:44	Run ID: F1_100609A
Client ID: LCSD-51814	Batch ID: 51814	Units: mg/L	Analysis Date: 06/10/10 8:23	SeqNo: 1319866
Analyte	Result	MDL	SPK value	SPK Ref Val
Extractable Total Petroleum	3.711	0.0035	5.000	74.2 60 140 3.123 17.2 20
Hydrocarbon				
Surrogate: ortho-Terphenyl	0.03485	0	0.04000	87.1 50 150 0
Surrogate: 5a-Androstane	0.03150	0	0.04000	78.7 30 110 0

Qualifiers: ND - Not Detected at the Reporting Limit

m10.06.11.A J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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ANALYTICAL QC SUMMARY REPORT
CTETPH S

CTETPH S

CT ETPH -- CT ETPH by GC-FID

Sample ID: LCS-51853	SampType: LCS	TestCode: CTETPH_S	Prep Date: 05/27/10 10:00	Run ID: F1_100613A
Client ID: LCS-51853	Batch ID: 51853	Units: mg/Kg	Analysis Date: 06/13/10 13:21	SeqNo: 1318544
Analyte	Result	MDL	SPK value	SPK Ref Val
Extractable Total Petroleum Hydrocarbon	202.2	2.4	333.3	0
Surrogate: ortho-Terphenyl	1.244	0	2.666	0
Surrogate: 5a-Androstane	1.390	0	2.666	0
			%REC LowLimit	HighLimit
			60.7	60
			140	0
			%RPD	RPDLimit
				Qual

Qualifiers: NID - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
m10.06.22.A

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CT ETPH -- CT ETPH by GC-FID

CTO-WE56, NSB New London

Sample ID: J1056-04AMS	SampType: MS	TestCode: CTETPH_S		Prep Date: 06/01/10 13:15	Run ID: F1_100617B							
Client ID: 06SB16-2628	Batch ID: 51920	Units: mg/Kg		Analysis Date: 06/18/10 4:55	SeqNo: 1319302							
Analyte	Result	MDL	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Extractable Total Petroleum Hydrocarbon	255.6	2.6	26	362.5	0	70.5	50	150	0			
Surrogate: ortho-Terphenyl	1.793	0	1.8	2.899	0	61.9	50	150	0			
Surrogate: 5a-Androstane	1.757	0	1.8	2.899	0	60.6	58	115	0			

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

BB - Analyte detected in the associated Method Blank

ANALYTICAL QC SUMMARY REPORT

CLIENT: Tetra Tech NUS Inc.
 Work Order: J1056
 Project: CTO-WE56, NSB New London

Sample ID: J1056-04AMSD
 Client ID: 06SB16-2628
 Analyte: Extractable Total Petroleum Hydrocarbon

SampType: MSD
 Batch ID: 51920
 Result: 289.1

TestCode: CTETPH_S
 Units: mg/Kg
 MDL: 2.7

Prep Date: 06/01/10 13:15
 Analysis Date: 06/18/10 5:34
 %REC: 78.2

Run ID: F1_100617B
 SeqNo: 1319303
 LowLimit: 50

SPK value: 369.6
 SPK Ref Val: 0
 %RPD: 12.3

HighLimit: 150
 RPD Ref Val: 255.6
 RPD Limit: 30

Surrogate: ortho-Terphenyl
 Surrogate: 5a-Androstane

1.963
 1.991
 0
 0
 1.8
 1.8

2.956
 2.956
 66.4
 67.3
 50
 58

0
 0
 0
 0
 150
 115

0
 0
 0
 0
 0
 0

30
 30

Qualifiers: ND - Not Detected at the Reporting Limit
 m10.06.22.A J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Mitkem Laboratories

Date: 09-Jun-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06SB20-0103

Lab ID: J1056-11

Project: CTO-WE56, NSB New London

Collection Date: 05/19/10 9:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
Walkley-Black TOC -- Walkley-Black -- Total Organic Carbon							WB_TOC_MGKG_S
Walkley-Black -- Total Organic Carbon	37000		4900	mg/Kg		1 06/08/2010 16:25	52162

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

ANALYTICAL QC SUMMARY REPORT

CLIENT: Tetra Tech NUS Inc.

Work Order: J1056

WB_TOC_MGKG_S

Project: CTO-WE56, NSB New London

Walkley-Black TOC -- Walkley-Black -- Total Organic Carbon

Sample ID: MB-52162	SampType: MBLK	TestCode: WB_TOC_MGKG_S	Prep Date: 06/08/10 14:45	Run ID: MANUAL_100608B
Client ID: MB-52162	Batch ID: 52162	Units: mg/Kg	Analysis Date: 06/08/10 14:45	SeqNo: 1310798
Analyte	Result	MDL	SPK Ref Val	%REC LowLimit HighLimit
	ND	1.0	SPK value	RPD Ref Val %RPD RPDLimit Qual

Walkley-Black -- Total Organic Carbon 5000

Sample ID: LCS-52162	SampType: LCS	TestCode: WB_TOC_MGKG_S	Prep Date: 06/08/10 14:45	Run ID: MANUAL_100608B
Client ID: LCS-52162	Batch ID: 52162	Units: mg/Kg	Analysis Date: 06/08/10 15:05	SeqNo: 1310799
Analyte	Result	MDL	SPK Ref Val	%REC LowLimit HighLimit
	20700	1.0	0	RPD Ref Val %RPD RPDLimit Qual

Walkley-Black -- Total Organic Carbon 5000

Sample ID: LCSD-52162	SampType: LCSD	TestCode: WB_TOC_MGKG_S	Prep Date: 06/08/10 14:45	Run ID: MANUAL_100608B
Client ID: LCSD-52162	Batch ID: 52162	Units: mg/Kg	Analysis Date: 06/08/10 15:25	SeqNo: 1310800
Analyte	Result	MDL	SPK Ref Val	%REC LowLimit HighLimit
	20390	1.0	0	RPD Ref Val %RPD RPDLimit Qual

Walkley-Black -- Total Organic Carbon 5000

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

06SB17-1012

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J1056-01B
Sample wt/vol: 7.80 (g/mL) G Lab File ID: V6H4855.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 10 Date Analyzed: 05/26/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether		3.6	U
71-43-2	Benzene		3.6	U
108-88-3	Toluene		3.6	U
100-41-4	Ethylbenzene		3.6	U
1330-20-7	m,p-Xylene		3.6	U
95-47-6	o-Xylene		3.6	U
1330-20-7	Xylene (Total)		3.6	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

06SB17-0810

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J1056-02B
Sample wt/vol: 7.30 (g/mL) G Lab File ID: V6H4916.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 15 Date Analyzed: 05/29/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/KG	
1634-04-4	Methyl tert-butyl ether		4.0	U
71-43-2	Benzene		4.0	U
108-88-3	Toluene		4.0	U
100-41-4	Ethylbenzene		4.0	U
1330-20-7	m,p-Xylene		4.0	U
95-47-6	o-Xylene		4.0	U
1330-20-7	Xylene (Total)		4.0	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

06SB16-2022

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J1056-03B
Sample wt/vol: 8.90 (g/mL) G Lab File ID: V6H4917.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 14 Date Analyzed: 05/29/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/KG	
1634-04-4	Methyl tert-butyl ether	3.3	U	U
71-43-2	Benzene	3.3	U	U
108-88-3	Toluene	3.3	U	U
100-41-4	Ethylbenzene	3.3	U	U
1330-20-7	m,p-Xylene	3.3	U	U
95-47-6	o-Xylene	3.3	U	U
1330-20-7	Xylene (Total)	3.3	U	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

06SB16-2628

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J1056-04B
Sample wt/vol: 7.70 (g/mL) G Lab File ID: V6H4858.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 11 Date Analyzed: 05/26/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	3.6	U
71-43-2	Benzene	3.6	U
108-88-3	Toluene	3.6	U
100-41-4	Ethylbenzene	3.6	U
1330-20-7	m,p-Xylene	3.6	U
95-47-6	o-Xylene	3.6	U
1330-20-7	Xylene (Total)	3.6	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

06SB16-2628MS

Lab Name: MITKEM LABORATORIES

Contract:

Lab Code: MITKEM

Case No.: J1056

Mod. Ref No.:

SDG No.: SJ1056

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: J1056-04BMS

Sample wt/vol: 5.20 (g/mL) G

Lab File ID: V6H5197.D

Level: (TRACE/LOW/MED) LOW

Date Received: 05/20/2010

% Moisture: not dec. 11

Date Analyzed: 06/09/2010

GC Column: DB-624

ID: 0.25

(mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/KG	
1634-04-4	Methyl tert-butyl ether		65	
71-43-2	Benzene		54	
108-88-3	Toluene		53	
100-41-4	Ethylbenzene		51	
1330-20-7	m,p-Xylene		110	
95-47-6	o-Xylene		54	
1330-20-7	Xylene (Total)		160	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
06SB16-2628MSD

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J1056-04BMSD
Sample wt/vol: 5.10 (g/mL) G Lab File ID: V6H5198.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. 11 Date Analyzed: 06/09/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/KG	
1634-04-4	Methyl tert-butyl ether		64	
71-43-2	Benzene		52	
108-88-3	Toluene		53	
100-41-4	Ethylbenzene		51	
1330-20-7	m,p-Xylene		110	
95-47-6	o-Xylene		52	
1330-20-7	Xylene (Total)		160	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

06RB-051810

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: J1056-05A
Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V1L4139.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. Date Analyzed: 05/26/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	µg/L
1634-04-4	Methyl tert-butyl ether	5.0	U
71-43-2	Benzene	5.0	U
108-88-3	Toluene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
1330-20-7	Xylene (Total)	5.0	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

06TBAQ-051810

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: J1056-06A
Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V1L4140.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2010
% Moisture: not dec. Date Analyzed: 05/26/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/L	
1634-04-4	Methyl tert-butyl ether		5.0	U
71-43-2	Benzene		5.0	U
108-88-3	Toluene		5.0	U
100-41-4	Ethylbenzene		5.0	U
1330-20-7	m,p-Xylene		5.0	U
95-47-6	o-Xylene		5.0	U
1330-20-7	Xylene (Total)		5.0	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
06SB15-0810

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J1056-07B
Sample wt/vol: 8.30 (g/mL) G Lab File ID: V6H5013.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/22/2010
% Moisture: not dec. 21 Date Analyzed: 06/02/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	3.8	U
71-43-2	Benzene	3.8	U
108-88-3	Toluene	3.8	U
100-41-4	Ethylbenzene	3.8	U
1330-20-7	m,p-Xylene	3.8	U
95-47-6	o-Xylene	3.8	U
1330-20-7	Xylene (Total)	3.8	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

06SB15-1012

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J1056-08B
Sample wt/vol: 8.00 (g/mL) G Lab File ID: V6H5014.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/22/2010
% Moisture: not dec. 18 Date Analyzed: 06/02/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	3.8	U
71-43-2	Benzene	3.8	U
108-88-3	Toluene	3.8	U
100-41-4	Ethylbenzene	3.8	U
1330-20-7	m,p-Xylene	3.8	U
95-47-6	o-Xylene	3.8	U
1330-20-7	Xylene (Total)	3.8	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

06SB05-1416

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J1056-09B
Sample wt/vol: 7.90 (g/mL) G Lab File ID: V6H4920.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/22/2010
% Moisture: not dec. 18 Date Analyzed: 05/29/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	µG/KG
1634-04-4	Methyl tert-butyl ether	3.9	U
71-43-2	Benzene	3.9	U
108-88-3	Toluene	3.9	U
100-41-4	Ethylbenzene	3.9	U
1330-20-7	m,p-Xylene	3.9	U
95-47-6	o-Xylene	3.9	U
1330-20-7	Xylene (Total)	3.9	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

06SB05-1618

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J1056-10B
Sample wt/vol: 8.30 (g/mL) G Lab File ID: V6H4921.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/22/2010
% Moisture: not dec. 18 Date Analyzed: 05/29/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	3.7	U
71-43-2	Benzene	3.7	U
108-88-3	Toluene	3.7	U
100-41-4	Ethylbenzene	3.7	U
1330-20-7	m,p-Xylene	3.7	U
95-47-6	o-Xylene	3.7	U
1330-20-7	Xylene (Total)	3.7	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

06SB20-0103

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J1056-11B
Sample wt/vol: 6.30 (g/mL) G Lab File ID: V6H4863.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/22/2010
% Moisture: not dec. 13 Date Analyzed: 05/26/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/KG	
1634-04-4	Methyl tert-butyl ether		4.6	U
71-43-2	Benzene		4.6	U
108-88-3	Toluene		4.6	U
100-41-4	Ethylbenzene		4.6	U
1330-20-7	m,p-Xylene		4.6	U
95-47-6	o-Xylene		4.6	U
1330-20-7	Xylene (Total)		4.6	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
06SB20-0406

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J1056-12B
Sample wt/vol: 4.90 (g/mL) G Lab File ID: V6H4864.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/22/2010
% Moisture: not dec. 10 Date Analyzed: 05/26/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	5.7	U
71-43-2	Benzene	5.7	U
108-88-3	Toluene	5.7	U
100-41-4	Ethylbenzene	5.7	U
1330-20-7	m,p-Xylene	5.7	U
95-47-6	o-Xylene	5.7	U
1330-20-7	Xylene (Total)	5.7	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

06SB10-0810

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J1056-13B
Sample wt/vol: 7.60 (g/mL) G Lab File ID: V6H4865.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/22/2010
% Moisture: not dec. 19 Date Analyzed: 05/26/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/KG	
1634-04-4	Methyl tert-butyl ether		4.1	U
71-43-2	Benzene		4.1	U
108-88-3	Toluene		4.1	U
100-41-4	Ethylbenzene		4.1	U
1330-20-7	m,p-Xylene		4.1	U
95-47-6	o-Xylene		4.1	U
1330-20-7	Xylene (Total)		4.1	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
06SB10-1214

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J1056-14B
Sample wt/vol: 6.70 (g/mL) G Lab File ID: V6H5015.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/22/2010
% Moisture: not dec. 14 Date Analyzed: 06/02/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	4.3	U
71-43-2	Benzene	4.3	U
108-88-3	Toluene	4.3	U
100-41-4	Ethylbenzene	4.3	U
1330-20-7	m,p-Xylene	4.3	U
95-47-6	o-Xylene	4.3	U
1330-20-7	Xylene (Total)	4.3	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

06SBDUP02

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J1056-15B
Sample wt/vol: 7.80 (g/mL) G Lab File ID: V6H5016.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/22/2010
% Moisture: not dec. 13 Date Analyzed: 06/02/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	3.7	U
71-43-2	Benzene	3.7	U
108-88-3	Toluene	3.7	U
100-41-4	Ethylbenzene	3.7	U
1330-20-7	m,p-Xylene	3.7	U
95-47-6	o-Xylene	3.7	U
1330-20-7	Xylene (Total)	3.7	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

06TBSO-DS2110

Lab Name: MITKEM LABORATORIES

Contract:

Lab Code: MITKEM

Case No.: J1056

Mod. Ref No.:

SDG No.: SJ1056

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: J1056-16B

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: V6H4834.D

Level: (TRACE/LOW/MED) LOW

Date Received: 05/22/2010

% Moisture: not dec. 0.0

Date Analyzed: 05/25/2010

GC Column: DB-624

ID: 0.25

(mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	5.0	U
71-43-2	Benzene	5.0	U
108-88-3	Toluene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
1330-20-7	Xylene (Total)	5.0	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

06SB04-1214

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J1056-17B
Sample wt/vol: 7.30 (g/mL) G Lab File ID: V6H4923.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/22/2010
% Moisture: not dec. 3.0 Date Analyzed: 05/29/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	3.5	U
71-43-2	Benzene	3.5	U
108-88-3	Toluene	3.5	U
100-41-4	Ethylbenzene	3.5	U
1330-20-7	m,p-Xylene	3.5	U
95-47-6	o-Xylene	3.5	U
1330-20-7	Xylene (Total)	3.5	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

06SB04-1618

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J1056-18B
Sample wt/vol: 6.90 (g/mL) G Lab File ID: V6H4924.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/22/2010
% Moisture: not dec. 13 Date Analyzed: 05/29/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	4.2	U
71-43-2	Benzene	4.2	U
108-88-3	Toluene	4.2	U
100-41-4	Ethylbenzene	4.2	U
1330-20-7	m,p-Xylene	4.2	U
95-47-6	o-Xylene	4.2	U
1330-20-7	Xylene (Total)	4.2	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
06SB19-0406

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J1056-19B
Sample wt/vol: 9.60 (g/mL) G Lab File ID: V6H4925.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/22/2010
% Moisture: not dec. 13 Date Analyzed: 05/29/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/KG	
1634-04-4	Methyl tert-butyl ether		3.0	U
71-43-2	Benzene		3.0	U
108-88-3	Toluene		3.0	U
100-41-4	Ethylbenzene		3.0	U
1330-20-7	m,p-Xylene		3.0	U
95-47-6	o-Xylene		3.0	U
1330-20-7	Xylene (Total)		3.0	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

06SB19-0810

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J1056-20B
Sample wt/vol: 8.10 (g/mL) G Lab File ID: V6H4927.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/22/2010
% Moisture: not dec. 9.0 Date Analyzed: 05/29/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	3.4	U
71-43-2	Benzene	2.0	J
108-88-3	Toluene	3.8	
100-41-4	Ethylbenzene	4.6	
1330-20-7	m,p-Xylene	14	
95-47-6	o-Xylene	7.0	
1330-20-7	Xylene (Total)	21	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
06SB18-0810

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J1056-21B
Sample wt/vol: 6.70 (g/mL) G Lab File ID: V6H5012.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/22/2010
% Moisture: not dec. 10 Date Analyzed: 06/02/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/KG	
1634-04-4	Methyl tert-butyl ether		4.1	U
71-43-2	Benzene		4.1	U
108-88-3	Toluene		4.1	U
100-41-4	Ethylbenzene		4.1	U
1330-20-7	m,p-Xylene		4.1	U
95-47-6	o-Xylene		4.1	U
1330-20-7	Xylene (Total)		4.1	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
06SB18-1012

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: J1056-22B
Sample wt/vol: 8.50 (g/mL) G Lab File ID: V6H4929.D
Level: (TRACE/LOW/MED) LOW Date Received: 05/22/2010
% Moisture: not dec. 10 Date Analyzed: 05/29/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	3.3	U
71-43-2	Benzene	3.3	U
108-88-3	Toluene	3.3	U
100-41-4	Ethylbenzene	3.3	U
1330-20-7	m,p-Xylene	3.3	U
95-47-6	o-Xylene	3.3	U
1330-20-7	Xylene (Total)	3.3	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS-51841

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: LCS-51841
Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V1L4133.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. Date Analyzed: 05/26/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	µg/L
1634-04-4	Methyl tert-butyl ether	51	Q
71-43-2	Benzene	52	
108-88-3	Toluene	50	
100-41-4	Ethylbenzene	51	
1330-20-7	Xylene (Total)	150	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
LCSD-51841

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: LCSD-51841
Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V1L4134.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. Date Analyzed: 05/26/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	µG/L
1634-04-4	Methyl tert-butyl ether	53	Q
71-43-2	Benzene	54	
108-88-3	Toluene	53	
100-41-4	Ethylbenzene	54	
1330-20-7	Xylene (Total)	160	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS-51810

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-51810
Sample wt/vol: #Error (g/mL) G Lab File ID: V6H4832.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	46	
71-43-2	Benzene	43	
108-88-3	Toluene	41	
100-41-4	Ethylbenzene	44	
1330-20-7	m,p-Xylene	90	
95-47-6	o-Xylene	48	
1330-20-7	Xylene (Total)	140	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
LCS-51854

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-51854
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6H4851.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/26/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/KG	
1634-04-4	Methyl tert-butyl ether		47	
71-43-2	Benzene		49	
108-88-3	Toluene		47	
100-41-4	Ethylbenzene		48	
1330-20-7	m,p-Xylene		95	
95-47-6	o-Xylene		51	
1330-20-7	Xylene (Total)		150	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS-51963

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-51963
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6H4913.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/29/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether		46	
71-43-2	Benzene		53	
108-88-3	Toluene		52	
100-41-4	Ethylbenzene		52	
1330-20-7	m,p-Xylene		110	
95-47-6	o-Xylene		52	
1330-20-7	Xylene (Total)		160	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSD-51963

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCSD-51963
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6H4914.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/29/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether		52	
71-43-2	Benzene		55	
108-88-3	Toluene		54	
100-41-4	Ethylbenzene		53	
1330-20-7	m,p-Xylene		110	
95-47-6	o-Xylene		54	
1330-20-7	Xylene (Total)		160	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
LCS-52035

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-52035
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6H5010.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 06/02/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/KG	
1634-04-4	Methyl tert-butyl ether		55	
71-43-2	Benzene		56	
108-88-3	Toluene		57	
100-41-4	Ethylbenzene		57	
1330-20-7	m,p-Xylene		120	
95-47-6	o-Xylene		59	
1330-20-7	Xylene (Total)		180	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSD-52035

Lab Name: MITKEM LABORATORIES

Contract:

Lab Code: MITKEM

Case No.: J1056

Mod. Ref No.:

SDG No.: SJ1056

Matrix: (SOIL/SED/WATER) SOIL

Lab Sample ID: LCSD-52035

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: V6H5011.D

Level: (TRACE/LOW/MED) LOW

Date Received:

% Moisture: not dec. 0.0

Date Analyzed: 06/02/2010

GC Column: DB-624

ID: 0.25

(mm)

Dilution Factor: 1.0

Soil Extract Volume:

(uL)

Soil Aliquot Volume:

(uL)

Purge Volume: 10.0

(mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) μ G/KG	Q
1634-04-4	Methyl tert-butyl ether	55	
71-43-2	Benzene	57	
108-88-3	Toluene	57	
100-41-4	Ethylbenzene	58	
1330-20-7	m,p-Xylene	120	
95-47-6	o-Xylene	59	
1330-20-7	Xylene (Total)	180	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
LCS-52183

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-52183
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6H5194.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 06/09/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/KG	
1634-04-4	Methyl tert-butyl ether		54	
71-43-2	Benzene		56	
108-88-3	Toluene		56	
100-41-4	Ethylbenzene		55	
1330-20-7	m,p-Xylene		110	
95-47-6	o-Xylene		57	
1330-20-7	Xylene (Total)		170	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB-51841

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod., Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-51841
Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V1L4136.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. Date Analyzed: 05/26/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	µg/L
1634-04-4	Methyl tert-butyl ether	5.0	U
71-43-2	Benzene	5.0	U
108-88-3	Toluene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB-51840

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-51840
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6H4833.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/25/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	µG/KG
1634-04-4	Methyl tert-butyl ether	5.0	U
71-43-2	Benzene	5.0	U
108-88-3	Toluene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
1330-20-7	Xylene (Total)	5.0	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB-51854

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____, SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-51854
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6H4852.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/26/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/Kg	
1634-04-4	Methyl tert-butyl ether	5.0	U	
71-43-2	Benzene	5.0	U	
108-88-3	Toluene	5.0	U	
100-41-4	Ethylbenzene	5.0	U	
1330-20-7	m,p-Xylene	5.0	U	
95-47-6	o-Xylene	5.0	U	
1330-20-7	Xylene (Total)	5.0	U	

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
MB-51963

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-51963
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6H4912.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 05/29/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether	5.0	U	U
71-43-2	Benzene	5.0	U	U
108-88-3	Toluene	5.0	U	U
100-41-4	Ethylbenzene	5.0	U	U
1330-20-7	m,p-Xylene	5.0	U	U
95-47-6	o-Xylene	5.0	U	U
1330-20-7	Xylene (Total)	5.0	U	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB-52035

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-52035
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6H5009.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 06/02/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	µG/KG	
1634-04-4	Methyl tert-butyl ether	5.0	U	U
71-43-2	Benzene	5.0	U	U
108-88-3	Toluene	5.0	U	U
100-41-4	Ethylbenzene	5.0	U	U
1330-20-7	m,p-Xylene	5.0	U	U
95-47-6	o-Xylene	5.0	U	U
1330-20-7	Xylene (Total)	5.0	U	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
MB-52183

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-52183
Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6H5196.D
Level: (TRACE/LOW/MED) LOW Date Received: _____
% Moisture: not dec. 0.0 Date Analyzed: 06/09/2010
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/KG	
1634-04-4	Methyl tert-butyl ether		5.0	U
71-43-2	Benzene		5.0	U
108-88-3	Toluene		5.0	U
100-41-4	Ethylbenzene		5.0	U
1330-20-7	m,p-Xylene		5.0	U
95-47-6	o-Xylene		5.0	U
1330-20-7	Xylene (Total)		5.0	U

WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES

Contract: _____

Lab Code: MITKEM

Case No.: J1056

Mod. Ref No.: _____

SDG No.: SJ1056

Level: (TRACE or LOW) LOW

	EPA SAMPLE NO.	VDMC1 (DBFM) #	VDMC2 (DCE) #	VDMC3 (TOL) #	VDMC4 (BFB) #				TOT OUT
01	LCS-51841	98	95	101	98				0
02	LCSD-51841	100	93	104	99				0
03	MB-51841	100	98	105	93				0
04	06RB-051810	98	88	108	92				0
05	06TBAQ-051810	100	99	103	92				0

VDMC1 (DBFM) Dibromofluoromethane

VDMC2 (DCE) = 1,2-Dichloroethane-d4

VDMC3 (TOL) = Toluene-d8

VDMC4 (BFB) = Bromofluorobenzene

QC LIMITS

(85-115)

(70-120)

(85-120)

(75-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

SOM_003

SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES

Contract:

Lab Code: MITKEM

Case No.: J1056

Mod. Ref No.:

SDG No.: SJ1056

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	VDMC1 (DBFM) #	VDMC2 (DCE) #	VDMC3 (TOL) #	VDMC4 (BFB) #				TOT OUT
01	LCS-51810	102	78	101	95				0
02	MB-51840	102	84	102	84				0
03	06TBSO-DS211 0	93	76	99	81				0
04	LCS-51854	106	104	97	108				0
05	MB-51854	101	108	104	82				0
06	06SB17-1012	112	113	96	82				0
07	06SB16-2628	108	124	97	86				0
08	06SB20-0103	104	120	96	93				0
09	06SB20-0406	110	120	92	103				0
10	06SB10-0810	106	112	96	88				0
11	MB-51963	102	93	105	79				0
12	LCS-51963	101	93	98	100				0
13	LCSD-51963	105	104	98	104				0
14	06SB17-0810	108	106	99	85				0
15	06SB16-2022	107	102	102	87				0
16	06SB05-1416	107	108	97	92				0
17	06SB05-1618	108	107	97	87				0
18	06SB04-1214	104	108	94	96				0
19	06SB04-1618	105	108	98	88				0
20	06SB19-0406	106	103	97	90				0
21	06SB19-0810	105	109	92	102				0
22	06SB18-1012	107	106	96	92				0
23	MB-52035	97	90	100	94				0
24	LCS-52035	101	106	100	101				0
25	LCSD-52035	99	97	99	100				0
26	06SB18-0810	102	108	97	98				0
27	06SB15-0810	101	109	98	96				0

QC LIMITS

(65-132)

(65-128)

(85-115)

(77-111)

VDMC1 (DBFM) Dibromofluoromethane

VDMC2 (DCE) = 1,2-Dichloroethane-d4

VDMC3 (TOL) = Toluene-d8

VDMC4 (BFB) = Bromofluorobenzene

Column to be used to flag recovery values

* Values outside of contract required QC limits

SOM_003

SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES

Contract: _____

Lab Code: MITKEM

Case No.: J1056

Mod. Ref No.: _____

SDG No.: SJ1056

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	VDMC1 (DBFM) #	VDMC2 (DCE) #	VDMC3 (TOL) #	VDMC4 (BFB) #				TOT OUT
28	06SB15-1012	102	108	96	96				0
29	06SB10-1214	102	106	97	97				0
30	06SBDUP02	102	111	97	97				0
31	LCS-52183	102	96	97	99				0
32	MB-52183	98	99	99	89				0
33	06SB16-2628M S	103	113	95	106				0
34	06SB16-2628M SD	105	109	96	103				0

VDMC1 (DBFM) Dibromofluoromethane

VDMC2 (DCE) = 1,2-Dichloroethane-d4

VDMC3 (TOL) = Toluene-d8

VDMC4 (BFB) = Bromofluorobenzene

QC LIMITS

(65-132)

(65-128)

(85-115)

(77-111)

Column to be used to flag recovery values

* Values outside of contract required QC limits

SOM_003

3B - FORM III VOA-2
SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: MITKEM LABORATORIES Contract: _____
 Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
 Matrix Spike - EPA Sample No.: 06SB16-2628 Level: (LOW/MED) LOW

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	MS CONCENTRATION (µg/Kg)	MS %REC	#	QC. LIMITS REC.
Methyl tert-butyl ether	54.0190	0.0000	65.3496	121		75-126
Benzene	54.0190	0.0000	53.5659	99		75-125
Toluene	54.0190	0.0000	53.4477	99		70-125
Ethylbenzene	54.0190	0.0000	51.2563	95		75-125
m,p-Xylene	108.0380	0.0000	108.2920	100		80-125
o-Xylene	54.0190	0.0000	54.0713	100		75-125
Xylene (Total)	162.0570	0.0000	162.3634	100		83-125

COMPOUND	SPIKE ADDED (µg/Kg)	MSD CONCENTRATION (µg/Kg)	MSD %REC	#	%RPD #	QC LIMITS	
						RPD	REC.
Methyl tert-butyl ether	55.0782	63.6222	116		5	0-40	75-126
Benzene	55.0782	51.9098	94		5	0-40	75-125
Toluene	55.0782	52.8119	96		3	0-40	70-125
Ethylbenzene	55.0782	51.0048	93		2	0-40	75-125
m,p-Xylene	110.1564	105.7560	96		4	0-40	80-125
o-Xylene	55.0782	52.2428	95		5	0-40	75-125
Xylene (Total)	165.2346	157.9988	96		5	0-40	83-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 7 outside limits

Spike Recovery: 0 out of 14 outside limits

COMMENTS: _____

3 - FORM III
WATER LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.

LCS-51841

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Lab Sample ID: LCS-51841 LCS Lot No.: _____
Date Extracted: 05/26/2010 Date Analyzed (1): 05/26/2010

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Methyl tert-butyl ether	50.0000	0.0000	50.6587	101		65 - 125
Benzene	50.0000	0.0000	51.5261	103		80 - 120
Toluene	50.0000	0.0000	50.3049	101		75 - 120
Ethylbenzene	50.0000	0.0000	50.6455	101		75 - 125
Xylene (Total)	150.0000	0.0000	149.9555	100		81 - 121

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

3 - FORM III
WATER LABORATORY CONTROL
SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

LCSD-51841

Lab Name: MITKEM LABORATORIES

Contract:

Lab Code: MITKEM

Case No.: J1056

Mod. Ref No.:

SDG No.: SJ1056

Lab Sample ID: LCSD-51841

LCS Lot No.:

COMPOUND	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC LIMITS	
							RPD	REC.
Methyl tert-butyl ether	50.0000	52.8319	106		5		40	65 - 125
Benzene	50.0000	54.4580	109		6		40	80 - 120
Toluene	50.0000	52.7827	106		5		40	75 - 120
Ethylbenzene	50.0000	53.6718	107		6		40	75 - 125
Xylene (Total)	150.0000	155.9404	104		4		40	81 - 121

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.

LCS-51810

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Lab Sample ID: LCS-51810 LCS Lot No.: _____
Date Extracted: _____ Date Analyzed (1): 05/25/2010

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Methyl tert-butyl ether	50.0000	0.0000	46.1541	92		75 - 126
Benzene	50.0000	0.0000	42.5022	85		75 - 125
Toluene	50.0000	0.0000	41.3929	83		70 - 125
Ethylbenzene	50.0000	0.0000	43.5947	87		75 - 125
m,p-Xylene	100.0000	0.0000	89.9128	90		80 - 125
o-Xylene	50.0000	0.0000	48.1465	96		75 - 125
Xylene (Total)	150.0000	0.0000	138.0593	92		83 - 125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 7 outside limits

COMMENTS: _____

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.

LCS-51854

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Lab Sample ID: LCS-51854 LCS Lot No.: _____
Date Extracted: 05/26/2010 Date Analyzed (1): 05/26/2010

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Methyl tert-butyl ether	50.0000	0.0000	47.1105	94		75 - 126
Benzene	50.0000	0.0000	49.3109	99		75 - 125
Toluene	50.0000	0.0000	47.4039	95		70 - 125
Ethylbenzene	50.0000	0.0000	47.5524	95		75 - 125
m,p-Xylene	100.0000	0.0000	95.3289	95		80 - 125
o-Xylene	50.0000	0.0000	50.9248	102		75 - 125
Xylene (Total)	150.0000	0.0000	146.2537	98		83 - 125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 7 outside limits

COMMENTS: _____

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.

LCS-51963

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Lab Sample ID: LCS-51963 LCS Lot No.: _____
Date Extracted: 05/29/2010 Date Analyzed (1): 05/29/2010

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Methyl tert-butyl ether	50.0000	0.0000	45.9259	92		75 - 126
Benzene	50.0000	0.0000	52.6925	105		75 - 125
Toluene	50.0000	0.0000	51.5945	103		70 - 125
Ethylbenzene	50.0000	0.0000	52.3327	105		75 - 125
m,p-Xylene	100.0000	0.0000	105.0659	105		80 - 125
o-Xylene	50.0000	0.0000	52.1134	104		75 - 125
Xylene (Total)	150.0000	0.0000	157.1792	105		83 - 125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 7 outside limits

COMMENTS:

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

LCSD-51963

Lab Name: MITKEM LABORATORIES

Contract:

Lab Code: MITKEM

Case No.: J1056

Mod. Ref No.:

SDG No.: SJ1056

Lab Sample ID: LCSD-51963

LCS Lot No.:

COMPOUND	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC LIMITS	
							RPD	REC.
Methyl tert-butyl ether	50.0000	52.4469	105		13		40	75 - 126
Benzene	50.0000	54.7434	109		4		40	75 - 125
Toluene	50.0000	53.6631	107		4		40	70 - 125
Ethylbenzene	50.0000	53.4446	107		2		40	75 - 125
m,p-Xylene	100.0000	109.1469	109		4		40	80 - 125
o-Xylene	50.0000	54.4057	109		5		40	75 - 125
Xylene (Total)	150.0000	163.5526	109		4		40	83 - 125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 7 outside limits

Spike Recovery: 0 out of 7 outside limits

COMMENTS:

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.

LCS-52035

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Lab Sample ID: LCS-52035 LCS Lot No.: _____
Date Extracted: 06/02/2010 Date Analyzed (1): 06/02/2010

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Methyl tert-butyl ether	50.0000	0.0000	55.0308	110		75 - 126
Benzene	50.0000	0.0000	56.0635	112		75 - 125
Toluene	50.0000	0.0000	56.5643	113		70 - 125
Ethylbenzene	50.0000	0.0000	56.8324	114		75 - 125
m,p-Xylene	100.0000	0.0000	116.3221	116		80 - 125
o-Xylene	50.0000	0.0000	58.8941	118		75 - 125
Xylene (Total)	150.0000	0.0000	175.2162	117		83 - 125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 7 outside limits

COMMENTS: _____

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

LCSD-52035

Lab Name: MITKEM LABORATORIES

Contract:

Lab Code: MITKEM

Case No.: J1056

Mod. Ref No.:

SDG No.: SJ1056

Lab Sample ID: LCSD-52035

LCS Lot No.:

COMPOUND	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC LIMITS	
							RPD	REC.
Methyl tert-butyl ether	50.0000	54.8324	110		0		40	75 - 126
Benzene	50.0000	56.6491	113		1		40	75 - 125
Toluene	50.0000	56.7854	114		1		40	70 - 125
Ethylbenzene	50.0000	57.8341	116		2		40	75 - 125
m,p-Xylene	100.0000	118.5087	119		3		40	80 - 125
o-Xylene	50.0000	58.7699	118		0		40	75 - 125
Xylene (Total)	150.0000	177.2787	118		1		40	83 - 125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 7 outside limits

Spike Recovery: 0 out of 7 outside limits

COMMENTS:

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.

LCS-52183

Lab Name: MITKEM LABORATORIES

Contract:

Lab Code: MITKEM

Case No.: J1056

Mod. Ref No.:

SDG No.: SJ1056

Lab Sample ID: LCS-52183

LCS Lot No.:

Date Extracted: 06/09/2010

Date Analyzed (1): 06/09/2010

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Methyl tert-butyl ether	50.0000	0.0000	54.0972	108		75 - 126
Benzene	50.0000	0.0000	56.4333	113		75 - 125
Toluene	50.0000	0.0000	56.2254	112		70 - 125
Ethylbenzene	50.0000	0.0000	54.9821	110		75 - 125
m,p-Xylene	100.0000	0.0000	114.8705	115		80 - 125
o-Xylene	50.0000	0.0000	57.0351	114		75 - 125
Xylene (Total)	150.0000	0.0000	171.9056	115		83 - 125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 7 outside limits

COMMENTS:

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MB-51841

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Lab File ID: V1L4136.D Lab Sample ID: MB-51841
Instrument ID: V1
Matrix: (SOIL/SED/WATER) WATER Date Analyzed: 05/26/2010
Level: (TRACE or LOW/MED) LOW Time Analyzed: 10:34
GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS-51841	LCS-51841	V1L4133.D	9:12
02	LCSD-51841	LCSD-51841	V1L4134.D	9:39
03	06RB-051810	J1056-05A	V1L4139.D	12:05
04	06TBAQ-051810	J1056-06A	V1L4140.D	12:33

COMMENTS:

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MB-51840

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Lab File ID: V6H4833.D Lab Sample ID: MB-51840
Instrument ID: V6
Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 05/25/2010
Level: (TRACE or LOW/MED) LOW Time Analyzed: 22:32
GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS-51810	LCS-51810	V6H4832.D	22:01
02	06TBSO-DS211 0	J1056-16B	V6H4834.D	23:03

COMMENTS: _____

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MB-51854

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Lab File ID: V6H4852.D Lab Sample ID: MB-51854
Instrument ID: V6
Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 05/26/2010
Level: (TRACE or LOW/MED) LOW Time Analyzed: 15:55
GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS-51854	LCS-51854	V6H4851.D	15:24
02	06SB17-1012	J1056-01B	V6H4855.D	16:59
03	06SB16-2628	J1056-04B	V6H4858.D	18:42
04	06SB20-0103	J1056-11B	V6H4863.D	21:18
05	06SB20-0406	J1056-12B	V6H4864.D	21:49
06	06SB10-0810	J1056-13B	V6H4865.D	22:20

COMMENTS: _____

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MB-52035

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Lab File ID: V6H5009.D Lab Sample ID: MB-52035
Instrument ID: V6
Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 06/02/2010
Level: (TRACE or LOW/MED) LOW Time Analyzed: 18:13
GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS-52035	LCS-52035	V6H5010.D	18:43
02	LCSD-52035	LCSD-52035	V6H5011.D	19:13
03	06SB18-0810	J1056-21B	V6H5012.D	19:56
04	06SB15-0810	J1056-07B	V6H5013.D	20:26
05	06SB15-1012	J1056-08B	V6H5014.D	20:55
06	06SB10-1214	J1056-14B	V6H5015.D	21:24
07	06SBDUP02	J1056-15B	V6H5016.D	21:54

COMMENTS: _____

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MB-52183

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Lab File ID: V6H5196.D Lab Sample ID: MB-52183
Instrument ID: V6
Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 06/09/2010
Level: (TRACE or LOW/MED) LOW Time Analyzed: 12:14
GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS-52183	LCS-52183	V6H5194.D	11:04
02	06SB16-2628M S	J1056-04BMS	V6H5197.D	12:44
03	06SB16-2628M SD	J1056-04BMSD	V6H5198.D	13:14

COMMENTS: _____

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB1X

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Lab File ID: V1L3980.D BFB Injection Date: 05/22/2010
Instrument ID: V1 BFB Injection Time: 12:07
GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.6
75	30.0 - 60.0% of mass 95	43.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	72.7
175	5.0 - 9.0% of mass 174	5.0 (6.9)1
176	95.0 - 101.0% of mass 174	69.1 (95.1)1
177	5.0 - 9.0% of mass 176	4.2 (6.1)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0501X	VSTD0501X	V1L3982.D	05/22/2010	13:06
02	VSTD0201X	VSTD0201X	V1L3983.D	05/22/2010	13:34
03	VSTD0051X	VSTD0051X	V1L3984.D	05/22/2010	14:01
04	VSTD2001X	VSTD2001X	V1L3987.D	05/22/2010	15:23
05	VSTD1001X	VSTD1001X	V1L3988.D	05/22/2010	15:51
06	VICV0501X	VICV0501X	V1L3989.D	05/22/2010	16:18

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB1C

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Lab File ID: V1L4131.D BFB Injection Date: 05/26/2010
Instrument ID: V1 BFB Injection Time: 7:53
GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.5
75	30.0 - 60.0% of mass 95	41.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	68.7
175	5.0 - 9.0% of mass 174	4.9 (7.1)1
176	95.0 - 101.0% of mass 174	66.8 (97.3)1
177	5.0 - 9.0% of mass 176	4.3 (6.5)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0501C	VSTD0501C	V1L4132.D	05/26/2010	8:31
02	LCS-51841	LCS-51841	V1L4133.D	05/26/2010	9:12
03	LCSD-51841	LCSD-51841	V1L4134.D	05/26/2010	9:39
04	MB-51841	MB-51841	V1L4136.D	05/26/2010	10:34
05	06RB-051810	J1056-05A	V1L4139.D	05/26/2010	12:05
06	06TBAQ-051810	J1056-06A	V1L4140.D	05/26/2010	12:33

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB5X

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Lab File ID: V6H4620.D BFB Injection Date: 05/19/2010
Instrument ID: V6 BFB Injection Time: 7:58
GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.0
75	30.0 - 60.0% of mass 95	38.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	97.4
175	5.0 - 9.0% of mass 174	6.9 (7.0)1
176	95.0 - 101.0% of mass 174	94.5 (97.0)1
177	5.0 - 9.0% of mass 176	6.4 (6.7)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0206X	VSTD0206X	V6H4625.D	05/19/2010	11:06
02	VSTD0056X	VSTD0056X	V6H4626.D	05/19/2010	11:35
03	VSTD2006X	VSTD2006X	V6H4628.D	05/19/2010	12:37
04	VSTD1006X	VSTD1006X	V6H4629.D	05/19/2010	13:07
05	VSTD0506X	VSTD0506X	V6H4631.D	05/19/2010	14:18
06	VICV0506X	VICV0506X	V6H4632.D	05/19/2010	15:04

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB5G

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Lab File ID: V6H4830.D BFB Injection Date: 05/25/2010
Instrument ID: V6 BFB Injection Time: 21:11
GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.8
75	30.0 - 60.0% of mass 95	41.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	1.1 (1.1)1
174	50.0 - 100.0% of mass 95	93.6
175	5.0 - 9.0% of mass 174	6.9 (7.4)1
176	95.0 - 101.0% of mass 174	90.9 (97.1)1
177	5.0 - 9.0% of mass 176	6.6 (7.2)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0506G	VSTD0506G	V6H4831.D	05/25/2010	21:31
02	LCS-51810	LCS-51810	V6H4832.D	05/25/2010	22:01
03	MB-51840	MB-51840	V6H4833.D	05/25/2010	22:32
04	06TBSO-DS211 0	J1056-16B	V6H4834.D	05/25/2010	23:03

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB5H

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Lab File ID: V6H4840.D BFB Injection Date: 05/26/2010
Instrument ID: V6 BFB Injection Time: 7:55
GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.9
75	30.0 - 60.0% of mass 95	41.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	97.1
175	5.0 - 9.0% of mass 174	6.6 (6.8)1
176	95.0 - 101.0% of mass 174	93.7 (96.5)1
177	5.0 - 9.0% of mass 176	6.4 (6.8)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0506H	VSTD0506H	V6H4842.D	05/26/2010	9:46
02	VSTD0206H	VSTD0206H	V6H4843.D	05/26/2010	10:30
03	VSTD0056H	VSTD0056H	V6H4844.D	05/26/2010	11:01
04	VSTD2006H	VSTD2006H	V6H4845.D	05/26/2010	11:32
05	VSTD1006H	VSTD1006H	V6H4846.D	05/26/2010	12:03
06	VICV0506H	VICV0506H	V6H4847.D	05/26/2010	13:32

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB6I

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Lab File ID: V6H4849.D BFB Injection Date: 05/26/2010
Instrument ID: V6 BFB Injection Time: 14:14
GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.3
75	30.0 - 60.0% of mass 95	47.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	92.3
175	5.0 - 9.0% of mass 174	7.5 (8.1)1
176	95.0 - 101.0% of mass 174	89.7 (97.1)1
177	5.0 - 9.0% of mass 176	5.4 (6.0)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0506I	VSTD0506I	V6H4850.D	05/26/2010	14:53
02	LCS-51854	LCS-51854	V6H4851.D	05/26/2010	15:24
03	MB-51854	MB-51854	V6H4852.D	05/26/2010	15:55
04	06SB17-1012	J1056-01B	V6H4855.D	05/26/2010	16:59
05	06SB16-2628	J1056-04B	V6H4858.D	05/26/2010	18:42
06	06SB20-0103	J1056-11B	V6H4863.D	05/26/2010	21:18
07	06SB20-0406	J1056-12B	V6H4864.D	05/26/2010	21:49
08	06SB10-0810	J1056-13B	V6H4865.D	05/26/2010	22:20

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB5J

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Lab File ID: V6H4900.D BFB Injection Date: 05/28/2010
Instrument ID: V6 BFB Injection Time: 13:59
GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.6
75	30.0 - 60.0% of mass 95	43.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.5 (0.6)1
174	50.0 - 100.0% of mass 95	79.7
175	5.0 - 9.0% of mass 174	5.6 (7.0)1
176	95.0 - 101.0% of mass 174	76.6 (96.1)1
177	5.0 - 9.0% of mass 176	5.3 (6.9)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0506J	VSTD0506J	V6H4904.D	05/28/2010	16:04
02	VSTD0206J	VSTD0206J	V6H4905.D	05/28/2010	16:34
03	VSTD0056J	VSTD0056J	V6H4906.D	05/28/2010	17:05
04	VSTD2006J	VSTD2006J	V6H4907.D	05/28/2010	17:35
05	VSTD1006J	VSTD1006J	V6H4908.D	05/28/2010	18:05
06	VICV0506J	VICV0506J	V6H4909.D	05/28/2010	18:35

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB5K

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Lab File ID: V6H4910.D BFB Injection Date: 05/29/2010
Instrument ID: V6 BFB Injection Time: 12:09
GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.3
75	30.0 - 60.0% of mass 95	47.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.4 (0.6)1
174	50.0 - 100.0% of mass 95	69.3
175	5.0 - 9.0% of mass 174	5.1 (7.3)1
176	95.0 - 101.0% of mass 174	66.4 (95.8)1
177	5.0 - 9.0% of mass 176	4.6 (6.9)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0506K	VSTD0506K	V6H4911.D	05/29/2010	12:26
02	MB-51963	MB-51963	V6H4912.D	05/29/2010	13:08
03	LCS-51963	LCS-51963	V6H4913.D	05/29/2010	13:38
04	LCSD-51963	LCSD-51963	V6H4914.D	05/29/2010	14:21
05	06SB17-0810	J1056-02B	V6H4916.D	05/29/2010	15:22
06	06SB16-2022	J1056-03B	V6H4917.D	05/29/2010	15:52
07	06SB05-1416	J1056-09B	V6H4920.D	05/29/2010	17:46
08	06SB05-1618	J1056-10B	V6H4921.D	05/29/2010	18:17
09	06SB04-1214	J1056-17B	V6H4923.D	05/29/2010	19:16
10	06SB04-1618	J1056-18B	V6H4924.D	05/29/2010	19:46
11	06SB19-0406	J1056-19B	V6H4925.D	05/29/2010	20:17
12	06SB19-0810	J1056-20B	V6H4927.D	05/29/2010	21:17
13	06SB18-1012	J1056-22B	V6H4929.D	05/29/2010	22:17

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB5N

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Lab File ID: V6H5000.D BFB Injection Date: 06/02/2010
Instrument ID: V6 BFB Injection Time: 12:37
GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.7
75	30.0 - 60.0% of mass 95	45.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	92.6
175	5.0 - 9.0% of mass 174	6.8 (7.4)1
176	95.0 - 101.0% of mass 174	89.6 (96.8)1
177	5.0 - 9.0% of mass 176	6.1 (6.8)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0506N	VSTD0506N	V6H5003.D	06/02/2010	14:13
02	VSTD0206N	VSTD0206N	V6H5004.D	06/02/2010	14:43
03	VSTD0056N	VSTD0056N	V6H5005.D	06/02/2010	15:13
04	VSTD2006N	VSTD2006N	V6H5006.D	06/02/2010	15:42
05	VSTD1006N	VSTD1006N	V6H5007.D	06/02/2010	16:11
06	VICV0506N	VICV0506N	V6H5008.D	06/02/2010	17:04
07	MB-52035	MB-52035	V6H5009.D	06/02/2010	18:13
08	LCS-52035	LCS-52035	V6H5010.D	06/02/2010	18:43
09	LCSD-52035	LCSD-52035	V6H5011.D	06/02/2010	19:13
10	06SB18-0810	J1056-21B	V6H5012.D	06/02/2010	19:56
11	06SB15-0810	J1056-07B	V6H5013.D	06/02/2010	20:26
12	06SB15-1012	J1056-08B	V6H5014.D	06/02/2010	20:55
13	06SB10-1214	J1056-14B	V6H5015.D	06/02/2010	21:24
14	06SBDUP02	J1056-15B	V6H5016.D	06/02/2010	21:54

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB6V

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Lab File ID: V6H5192.D BFB Injection Date: 06/09/2010
Instrument ID: V6 BFB Injection Time: 9:26
GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.1
75	30.0 - 60.0% of mass 95	44.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.8 (1.0)1
174	50.0 - 100.0% of mass 95	82.8
175	5.0 - 9.0% of mass 174	4.4 (5.3)1
176	95.0 - 101.0% of mass 174	83.0 (100.2)1
177	5.0 - 9.0% of mass 176	5.6 (6.8)2

1 - Value is % mass 174

2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0506V	VSTD0506V	V6H5193.D	06/09/2010	10:19
02	LCS-52183	LCS-52183	V6H5194.D	06/09/2010	11:04
03	MB-52183	MB-52183	V6H5196.D	06/09/2010	12:14
04	06SB16-2628M S	J1056-04BMS	V6H5197.D	06/09/2010	12:44
05	06SB16-2628M SD	J1056-04BMSD	V6H5198.D	06/09/2010	13:14

6A - FORM VI VOA-1
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056

Instrument ID: V1 Calibration Date(s): 05/22/2010 05/22/2010

Heated Purge: (Y/N) N Calibration Time(s): 13:06 15:51

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____		RRF005 = <u>V1L3984.D</u>	RRF020 = <u>V1L3983.D</u>				
RRF050 = <u>V1L3982.D</u>		RRF100 = <u>V1L3988.D</u>	RRF200 = <u>V1L3987.D</u>				
COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	RRF	%RSD
Methyl tert-butyl ether	0.890	0.958	0.846	0.873	0.806	0.875	6.5
Benzene	1.323	1.425	1.286	1.290	1.249	1.315	5.1
Toluene	1.231	1.351	1.184	1.208	1.174	1.230	5.8
Ethylbenzene	0.535	0.632	0.568	0.582	0.579	0.579	6.0
m,p-Xylene	0.722	0.811	0.707	0.730	0.696	0.733	6.2
o-Xylene	0.695	0.797	0.695	0.714	0.689	0.718	6.3
Xylene (Total)	0.713	0.806	0.703	0.725	0.694	0.728	6.2

6B - FORM VI VOA-2
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056

Instrument ID: V1 Calibration Date(s): 05/22/2010 05/22/2010

Heated Purge: (Y/N) N Calibration Time(s): 13:06 15:51

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____	RRF005 = _____	V1L3984.D	RRF020 = _____	V1L3983.D
RRF050 = _____	V1L3982.D	RRF100 = _____	V1L3988.D	RRF200 = _____
				V1L3987.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	RRF	%RSD
Dibromofluoromethane	0.294	0.287	0.281	0.287	0.279	0.286	2.1
1,2-Dichloroethane-d4	0.063	0.063	0.066	0.066	0.061	0.064	3.1
Toluene-d8	1.360	1.354	1.354	1.341	1.347	1.351	0.5
Bromofluorobenzene	0.505	0.509	0.520	0.517	0.518	0.514	1.2

6A - FORM VI VOA-1
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056

Instrument ID: V6 Calibration Date(s): 05/19/2010 05/19/2010

Heated Purge: (Y/N) Y Calibration Time(s): 11:06 14:18

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____		RRF005 = <u>V6H4626.D</u>	RRF020 = <u>V6H4625.D</u>				
RRF050 = <u>V6H4631.D</u>		RRF100 = <u>V6H4629.D</u>	RRF200 = <u>V6H4628.D</u>				
COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	RRF	%RSD
Methyl tert-butyl ether	0.530	0.647	0.641	0.660	0.444	0.585	16.1
Benzene	0.829	0.860	0.822	0.779	0.536	0.765	17.1
Toluene	0.402	0.427	0.439	0.426	0.294	0.397	15.0
Ethylbenzene	0.405	0.503	0.512	0.502	0.352	0.455	15.9
m,p-Xylene	0.548	0.624	0.617	0.594	0.411	0.559	15.7
o-Xylene	0.425	0.571	0.592	0.582	0.403	0.515	17.9
Xylene (Total)	0.507	0.606	0.609	0.590	0.409	0.544	15.9

6B - FORM VI VOA-2
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Instrument ID: V6 Calibration Date(s): 05/19/2010 05/19/2010
Heated Purge: (Y/N) Y Calibration Time(s): 11:06 14:18
Purge Volume: 5.0 (mL)
GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____	RRF005 =	V6H4626.D	RRF020 =	V6H4625.D			
RRF050 =	V6H4631.D	RRF100 =	V6H4629.D	RRF200 =	V6H4628.D		
COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	RRF	%RSD
Dibromofluoromethane	0.301	0.308	0.302	0.299	0.307	0.303	1.2
1,2-Dichloroethane-d4	0.047	0.046	0.047	0.042	0.044	0.045	4.7
Toluene-d8	1.203	1.225	1.232	1.203	1.233	1.219	1.2
Bromofluorobenzene	0.489	0.497	0.501	0.504	0.526	0.504	2.7

6A - FORM VI VOA-1
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056

Instrument ID: V6 Calibration Date(s): 05/26/2010 05/26/2010

Heated Purge: (Y/N) Y Calibration Time(s): 9:46 12:03

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____		RRF005 =	V6H4844.D	RRF020 =	V6H4843.D			
RRF050 =		V6H4842.D	RRF100 =	V6H4846.D	RRF200 =	V6H4845.D		
COMPOUND		RRF005	RRF020	RRF050	RRF100	RRF200	RRF	%RSD
Methyl tert-butyl ether		0.358	0.403	0.337	0.443	0.440	0.396	12.2
Benzene		0.677	0.635	0.702	0.695	0.668	0.675	3.9
Toluene		0.329	0.305	0.365	0.400	0.387	0.357	11.1
Ethylbenzene		0.409	0.420	0.483	0.463	0.439	0.443	6.9
m,p-Xylene		0.518	0.512	0.596	0.561	0.533	0.544	6.4
o-Xylene		0.453	0.482	0.559	0.541	0.517	0.511	8.5
Xylene (Total)		0.496	0.502	0.584	0.555	0.528	0.533	6.9

6B - FORM VI VOA-2
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Instrument ID: V6 Calibration Date(s): 05/26/2010 05/26/2010
Heated Purge: (Y/N) Y Calibration Time(s): 9:46 12:03
Purge Volume: 5.0 (mL)
GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____	RRF005 = _____	V6H4844.D	RRF020 = _____	V6H4843.D			
RRF050 = _____	V6H4842.D	RRF100 = _____	V6H4846.D	RRF200 = _____			
			V6H4845.D				
COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	RRF	%RSD
Dibromofluoromethane	0.293	0.300	0.294	0.304	0.308	0.300	2.2
1,2-Dichloroethane-d4	0.038	0.037	0.039	0.036	0.036	0.037	3.8
Toluene-d8	1.242	1.322	1.287	1.278	1.261	1.278	2.3
Bromofluorobenzene	0.399	0.436	0.457	0.469	0.477	0.448	7.0

6A - FORM VI VOA-1
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056

Instrument ID: V6 Calibration Date(s): 05/28/2010 05/28/2010

Heated Purge: (Y/N) Y Calibration Time(s): 16:04 18:05

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____		RRF005 =	V6H4906.D	RRF020 =	V6H4905.D			
RRF050 =	V6H4904.D	RRF100 =	V6H4908.D	RRF200 =	V6H4907.D			
COMPOUND		RRF005	RRF020	RRF050	RRF100	RRF200	RRF	%RSD
Methyl tert-butyl ether		0.563	0.582	0.604	0.582	0.493	0.565	7.5
Benzene		0.889	0.999	1.052	0.981	0.837	0.951	9.1
Toluene		1.040	1.162	1.219	1.147	0.964	1.106	9.3
Ethylbenzene		0.443	0.570	0.557	0.550	0.471	0.518	11.0
m,p-Xylene		0.552	0.705	0.677	0.678	0.562	0.634	11.4
o-Xylene		0.555	0.700	0.676	0.676	0.579	0.637	10.3
Xylene (Total)		0.553	0.703	0.676	0.677	0.567	0.635	11.0

6B - FORM VI VOA-2
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056

Instrument ID: V6 Calibration Date(s): 05/28/2010 05/28/2010

Heated Purge: (Y/N) Y Calibration Time(s): 16:04 18:05

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____		RRF005 = <u>V6H4906.D</u>	RRF020 = <u>V6H4905.D</u>				
RRF050 = <u>V6H4904.D</u>		RRF100 = <u>V6H4908.D</u>	RRF200 = <u>V6H4907.D</u>				
COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	RRF	%RSD
Dibromofluoromethane	0.236	0.244	0.247	0.250	0.251	0.246	2.5
1,2-Dichloroethane-d4	0.041	0.041	0.044	0.046	0.038	0.042	7.0
Toluene-d8	1.412	1.424	1.384	1.356	1.331	1.381	2.8
Bromofluorobenzene	0.409	0.469	0.494	0.506	0.527	0.481	9.4

6A - FORM VI VOA-1
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056

Instrument ID: V6 Calibration Date(s): 06/02/2010 06/02/2010

Heated Purge: (Y/N) Y Calibration Time(s): 14:13 16:11

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: _____		RRF005 = <u>V6H5005.D</u>	RRF020 = <u>V6H5004.D</u>				
RRF050 = <u>V6H5003.D</u>		RRF100 = <u>V6H5007.D</u>	RRF200 = <u>V6H5006.D</u>				
COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	RRF	%RSD
Methyl tert-butyl ether	0.556	0.594	0.620	0.657	0.627	0.611	6.2
Benzene	0.837	0.897	1.000	0.973	0.975	0.936	7.2
Toluene	0.925	0.995	1.126	1.115	1.103	1.053	8.4
Ethylbenzene	0.403	0.446	0.507	0.529	0.529	0.483	11.6
m,p-Xylene	0.477	0.559	0.632	0.650	0.644	0.592	12.5
o-Xylene	0.472	0.544	0.622	0.650	0.642	0.586	13.0
Xylene (Total)	0.476	0.554	0.629	0.650	0.643	0.590	12.7

6B - FORM VI VOA-2
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056

Instrument ID: V6 Calibration Date(s): 06/02/2010 06/02/2010

Heated Purge: (Y/N) Y Calibration Time(s): 14:13 16:11

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID:

RRF005 = V6H5005.D

RRF020 = V6H5004.D

RRF050 = V6H5003.D

RRF100 = V6H5007.D

RRF200 = V6H5006.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	RRF	%RSD
Dibromofluoromethane	0.259	0.260	0.266	0.259	0.266	0.262	1.3
1,2-Dichloroethane-d4	0.042	0.041	0.040	0.040	0.040	0.041	1.6
Toluene-d8	1.348	1.351	1.316	1.316	1.326	1.331	1.3
Bromofluorobenzene	0.520	0.523	0.533	0.527	0.525	0.526	1.0

7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056

Instrument ID: V1 Calibration Date: 05/26/2010 Time: 8:31

Lab File ID: V1L4132.D Init. Calib. Date(s): 05/22/2010 05/22/2010

EPA Sample No. (VSTD#####): VSTD0501C Init. Calib. Time(s): 13:06 15:51

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Methyl tert-butyl ether	0.875	0.877	0.010	0.2	20.0
Benzene	1.315	1.390	0.010	5.7	20.0
Toluene	1.230	1.252	0.010	1.8	20.0
Ethylbenzene	0.579	0.611	0.010	5.4	20.0
m,p-Xylene	0.733	0.750	0.010	2.4	20.0
o-Xylene	0.718	0.751	0.010	4.5	20.0
Xylene (Total)	0.728	0.750	0.010	3.1	20.0

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056

Instrument ID: V1 Calibration Date: 05/26/2010 Time: 8:31

Lab File ID: V1L4132.D Init. Calib. Date(s): 05/22/2010 05/22/2010

EPA Sample No. (VSTD#####): VSTD0501C Init. Calib. Time(s): 13:06 15:51

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.286	0.271	0.010	-5.1	20.0
1,2-Dichloroethane-d4	0.064	0.061	0.010	-4.1	20.0
Toluene-d8	1.351	1.373	0.010	1.6	20.0
Bromofluorobenzene	0.514	0.500	0.010	-2.7	20.0

7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056

Instrument ID: V6 Calibration Date: 05/25/2010 Time: 21:31

Lab File ID: V6H4831.D Init. Calib. Date(s): 05/19/2010 05/19/2010

EPA Sample No. (VSTD#####): VSTD0506G Init. Calib. Time(s): 11:06 14:18

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Methyl tert-butyl ether	0.585	0.520	0.010	-11.0	20.0
Benzene	0.765	0.665	0.010	-13.1	20.0
Toluene	0.397	0.338	0.010	-14.9	20.0
Ethylbenzene	0.455	0.426	0.010	-6.4	20.0
m,p-Xylene	0.559	0.540	0.010	-3.3	20.0
o-Xylene	0.515	0.526	0.010	2.3	20.0
Xylene (Total)	0.544	0.536	0.010	-1.5	20.0

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Instrument ID: V6 Calibration Date: 05/25/2010 Time: 21:31
Lab File ID: V6H4831.D Init. Calib. Date(s): 05/19/2010 05/19/2010
EPA Sample No. (VSTD#####): VSTD0506G Init. Calib. Time(s): 11:06 14:18
Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)
Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.303	0.308	0.010	1.7	20.0
1,2-Dichloroethane-d4	0.045	0.036	0.010	-20.1	20.0
Toluene-d8	1.219	1.228	0.010	0.7	20.0
Bromofluorobenzene	0.504	0.472	0.010	-6.3	20.0

7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Instrument ID: V6 Calibration Date: 05/26/2010 Time: 14:53
Lab File ID: V6H4850.D Init. Calib. Date(s): 05/26/2010 05/26/2010
EPA Sample No. (VSTD#####): VSTD0506I Init. Calib. Time(s): 9:46 12:03
Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)
Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Methyl tert-butyl ether	0.396	0.406	0.010	2.4	20.0
Benzene	0.675	0.773	0.010	14.4	20.0
Toluene	0.357	0.409	0.010	14.6	20.0
Ethylbenzene	0.443	0.479	0.010	8.3	20.0
m,p-Xylene	0.544	0.578	0.010	6.3	20.0
o-Xylene	0.511	0.567	0.010	11.0	20.0
Xylene (Total)	0.533	0.575	0.010	7.8	20.0

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Instrument ID: V6 Calibration Date: 05/26/2010 Time: 14:53
Lab File ID: V6H4850.D Init. Calib. Date(s): 05/26/2010 05/26/2010
EPA Sample No. (VSTD#####): VSTD0506I Init. Calib. Time(s): 9:46 12:03
Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)
Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.300	0.307	0.010	2.4	20.0
1,2-Dichloroethane-d4	0.037	0.042	0.010	11.6	20.0
Toluene-d8	1.278	1.241	0.010	-2.9	20.0
Bromofluorobenzene	0.448	0.473	0.010	5.7	20.0

7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056

Instrument ID: V6 Calibration Date: 05/29/2010 Time: 12:26

Lab File ID: V6H4911.D Init. Calib. Date(s): 05/28/2010 05/28/2010

EPA Sample No. (VSTD#####): VSTD0506K Init. Calib. Time(s): 16:04 18:05

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Methyl tert-butyl ether	0.565	0.522	0.010	-7.5	20.0
Benzene	0.951	0.994	0.010	4.5	20.0
Toluene	1.106	1.142	0.010	3.2	20.0
Ethylbenzene	0.518	0.543	0.010	4.7	20.0
m,p-Xylene	0.634	0.673	0.010	6.0	20.0
o-Xylene	0.637	0.663	0.010	4.0	20.0
Xylene (Total)	0.635	0.669	0.010	5.3	20.0

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056

Instrument ID: V6 Calibration Date: 05/29/2010 Time: 12:26

Lab File ID: V6H4911.D Init. Calib. Date(s): 05/28/2010 05/28/2010

EPA Sample No. (VSTD#####): VSTD0506K Init. Calib. Time(s): 16:04 18:05

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.246	0.254	0.010	3.5	20.0
1,2-Dichloroethane-d4	0.042	0.041	0.010	-2.8	20.0
Toluene-d8	1.381	1.390	0.010	0.7	20.0
Bromofluorobenzene	0.481	0.488	0.010	1.4	20.0

7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056

Instrument ID: V6 Calibration Date: 06/09/2010 Time: 10:19

Lab File ID: V6H5193.D Init. Calib. Date(s): 06/02/2010 06/02/2010

EPA Sample No. (VSTD#####): VSTD0506V Init. Calib. Time(s): 14:13 16:11

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Methyl tert-butyl ether	0.611	0.652	0.010	6.8	20.0
Benzene	0.936	1.065	0.010	13.8	20.0
Toluene	1.053	1.180	0.010	12.0	20.0
Ethylbenzene	0.483	0.526	0.010	9.0	20.0
m,p-Xylene	0.592	0.680	0.010	14.7	20.0
o-Xylene	0.586	0.647	0.010	10.4	20.0
Xylene (Total)	0.590	0.669	0.010	13.3	20.0

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: _____
Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056
Instrument ID: V6 Calibration Date: 06/09/2010 Time: 10:19
Lab File ID: V6H5193.D Init. Calib. Date(s): 06/02/2010 06/02/2010
EPA Sample No. (VSTD#####): VSTD0506V Init. Calib. Time(s): 14:13 16:11
Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)
Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.262	0.262	0.010	-0.1	20.0
1,2-Dichloroethane-d4	0.041	0.038	0.010	-6.3	20.0
Toluene-d8	1.331	1.295	0.010	-2.7	20.0
Bromofluorobenzene	0.526	0.517	0.010	-1.7	20.0

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 05/22/2010 05/22/2010

EPA Sample No. (VSTD####): VSTD0501C Date Analyzed: 05/26/2010

Lab File ID (Standard): V1L4132.D Time Analyzed: 8:31

Instrument ID: V1 Heated Purge: (Y/N) N

		IS1 (S1)		IS2 (S2)		IS3 (S3)	
		AREA	# RT	AREA	# RT	AREA	# RT
	12 HOUR STD	466352	6.696	290242	10.379	122472	13.205
	UPPER LIMIT	932704	7.196	580484	10.879	244944	13.705
	LOWER LIMIT	233176	6.196	145121	9.879	61236	12.705
	EPA SAMPLE NO.						
01	LCS-51841	448143	6.678	284482	10.370	121915	13.196
02	LCSD-51841	429194	6.693	272828	10.376	115971	13.202
03	MB-51841	432340	6.689	259899	10.381	99379	13.207
04	06RB-051810	447026	6.678	257531	10.370	91593	13.206
05	06TBAQ-051810	452079	6.686	276296	10.379	99434	13.214

IS1 () = Fluorobenzene

IS2 () = Chlorobenzene-d5

IS3 () = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of
internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of
internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles)
minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles)
minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 05/19/2010 05/19/2010

EPA Sample No. (VSTD####): VSTD0506G Date Analyzed: 05/25/2010

Lab File ID (Standard): V6H4831.D Time Analyzed: 21:31

Instrument ID: V6 Heated Purge: (Y/N) Y

	IS1 (S1)		IS2 (S2)		IS3 (S3)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	496562	5.705	420074	9.325	236244	12.294
UPPER LIMIT	993124	6.205	840148	9.825	472488	12.794
LOWER LIMIT	248281	5.205	210037	8.825	118122	11.794
EPA SAMPLE NO.						
01 LCS-51810	495033	5.706	422376	9.325	242673	12.294
02 MB-51840	515243	5.707	431805	9.326	196817	12.301
03 06TBSO-DS211 0	561782	5.709	471661	9.329	199191	12.303

IS1 () = Fluorobenzene

IS2 () = Chlorobenzene-d5

IS3 () = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of
internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of
internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles)
minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles)
minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 05/26/2010 05/26/2010

EPA Sample No. (VSTD####): VSTD0506I Date Analyzed: 05/26/2010

Lab File ID (Standard): V6H4850.D Time Analyzed: 14:53

Instrument ID: V6 Heated Purge: (Y/N) Y

		IS1 (S1)		IS2 (S2)		IS3 (S3)	
		AREA	# RT	AREA	# RT	AREA	# RT
	12 HOUR STD	574089	5.705	463798	9.325	242856	12.299
	UPPER LIMIT	1148178	6.205	927596	9.825	485712	12.799
	LOWER LIMIT	287045	5.205	231899	8.825	121428	11.799
	EPA SAMPLE NO.						
01	LCS-51854	544887	5.700	439641	9.326	230297	12.295
02	MB-51854	565393	5.713	432208	9.327	130022	12.301
03	06SB17-1012	484316	5.704	406936	9.323	124231	12.304
04	06SB16-2628	536006	5.703	439378	9.329	140173	12.310
05	06SB20-0103	378369	5.711	313522	9.330	122665	12.305
06	06SB20-0406	385983	5.707	342729	9.326	188178	12.295
07	06SB10-0810	421010	5.715	339715	9.329	123735	12.304

IS1 () = Fluorobenzene

IS2 () = Chlorobenzene-d5

IS3 () = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of
internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of
internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles)
minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles)
minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 05/28/2010 05/28/2010

EPA Sample No. (VSTD#####): VSTD0506K Date Analyzed: 05/29/2010

Lab File ID (Standard): V6H4911.D Time Analyzed: 12:26

Instrument ID: V6 Heated Purge: (Y/N) Y

	IS1 (S1)		IS2 (S2)		IS3 (S3)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	2282379	5.702	1669146	9.314	674105	12.288
UPPER LIMIT	4564758	6.202	3338292	9.814	1348210	12.788
LOWER LIMIT	1141190	5.202	834573	8.814	337053	11.788
EPA SAMPLE NO.						
01 MB-51963	2100781	5.709	1400678	9.327	337651	12.301
02 LCS-51963	2162944	5.703	1596390	9.315	646356	12.289
03 LCSD-51963	2091708	5.701	1560904	9.320	658101	12.287
04 06SB17-0810	2073568	5.705	1483732	9.323	402349	12.297
05 06SB16-2022	2125983	5.708	1492025	9.326	400738	12.300
06 06SB05-1416	2154403	5.701	1622880	9.320	509475	12.294
07 06SB05-1618	2137995	5.701	1585661	9.319	452900	12.293
08 06SB04-1214	2238341	5.695	1725247	9.314	617074	12.288
09 06SB04-1618	2237860	5.701	1645909	9.319	485235	12.293
10 06SB19-0406	2170357	5.702	1633082	9.315	522156	12.295
11 06SB19-0810	2053474	5.697	1637789	9.316	716621	12.289
12 06SB18-1012	2110872	5.705	1584906	9.317	507274	12.291

IS1 () = Fluorobenzene

IS2 () = Chlorobenzene-d5

IS3 () = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of
internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of
internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles)
minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles)
minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 06/02/2010 06/02/2010

EPA Sample No. (VSTD####): VSTD0506N Date Analyzed: 06/02/2010

Lab File ID (Standard): V6H5003.D Time Analyzed: 14:13

Instrument ID: V6 Heated Purge: (Y/N) Y

	IS1 (S1)		IS2 (S2)		IS3 (S3)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	1639062	5.702	1235753	9.314	670730	12.288
UPPER LIMIT	3278124	6.202	2471506	9.814	1341460	12.788
LOWER LIMIT	819531	5.202	617877	8.814	335365	11.788
EPA SAMPLE NO.						
01 VICV0506N	1567522	5.699	1181373	9.317	650857	12.285
02 MB-52035	1643683	5.701	1183245	9.314	610215	12.287
03 LCS-52035	1529622	5.702	1152171	9.314	644134	12.282
04 LCSD-52035	1528031	5.699	1146549	9.311	633454	12.285
05 06SB18-0810	1521818	5.703	1171725	9.316	622056	12.289
06 06SB15-0810	1461190	5.698	1108954	9.317	596965	12.284
07 06SB15-1012	1276645	5.699	971191	9.317	496597	12.285
08 06SB10-1214	1422698	5.699	1079374	9.317	571287	12.285
09 06SBDUP02	1317851	5.699	995095	9.317	521972	12.285

IS1 () = Fluorobenzene

IS2 () = Chlorobenzene-d5

IS3 () = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of
internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of
internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles)
minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles)
minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: _____

Lab Code: MITKEM Case No.: J1056 Mod. Ref No.: _____ SDG No.: SJ1056

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 06/02/2010 06/02/2010

EPA Sample No. (VSTD#####): VSTD0506V Date Analyzed: 06/09/2010

Lab File ID (Standard): V6H5193.D Time Analyzed: 10:19

Instrument ID: V6 Heated Purge: (Y/N) Y

		IS1 (S1)		IS2 (S2)		IS3 (S3)	
		AREA	# RT	AREA	# RT	AREA	# RT
	12 HOUR STD	1038130	5.696	817197	9.315	461153	12.289
	UPPER LIMIT	2076260	6.196	1634394	9.815	922306	12.789
	LOWER LIMIT	519065	5.196	408599	8.815	230577	11.789
	EPA SAMPLE NO.						
01	LCS-52183	1021246	5.698	802316	9.316	452856	12.284
02	MB-52183	948636	5.699	733477	9.317	351442	12.285
03	06SB16-2628M S	923147	5.695	751853	9.314	453384	12.287
04	06SB16-2628M SD	980806	5.696	794975	9.314	474127	12.288

IS1 () = Fluorobenzene

IS2 () = Chlorobenzene-d5

IS3 () = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of
internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of
internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles)
minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles)
minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

Report Date:
12-Jul-10 15:02



- ☒ Final Report
☐ Re-Issued Report
☐ Revised Report

A DIVISION OF SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY

Laboratory Report

Tetra Tech NUS Inc.
661 Andersen Drive, Foster Plaza #7
Pittsburgh, PA 15220

Work Order: J1250
Project: CTO-WE56, NSB New London
Project #: WATERS

Attn: Tobrena Skeen

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
J1250-01	06MW01-20100615	Aqueous	15-Jun-10 09:40	16-Jun-10 10:00
J1250-02	06MW02-20100615	Aqueous	15-Jun-10 11:00	16-Jun-10 10:00
J1250-03	06MW03-20100615	Aqueous	15-Jun-10 12:25	16-Jun-10 10:00
J1250-04	06MW04-20100615	Aqueous	15-Jun-10 14:10	16-Jun-10 10:00
J1250-05	06MW10-20100615	Aqueous	15-Jun-10 14:45	16-Jun-10 10:00
J1250-06	06MW05-20100615	Aqueous	15-Jun-10 15:20	16-Jun-10 10:00
J1250-07	TRIP BLANK	Aqueous	15-Jun-10 08:00	16-Jun-10 10:00

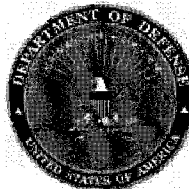
I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. The results relate only to the samples(s) as received.

All applicable NELAP or USEPA CLP requirements have been met.

Mitkem Laboratories is accredited under the National Environmental Laboratory Approval Program (NELAP) and is certified by several States, as well as USEPA and US Department of Defense. The current list of our laboratory approvals and certifications is available on the Certifications page our web site at www.mitkem.com.

Please contact the Laboratory or Technical Director at 401-732-3400 with any questions regarding the data contained in the laboratory report.

Department of Defense	N/A
Connecticut	PH-0153
Delaware	N/A
Maine	2007037
Massachusetts	M-RJ907
New Hampshire	2631
New Jersey	RI001
New York	11522
North Carolina	581
Pennsylvania	68-00520
Rhode Island	LAI00301
Texas	T104704422-08-TX
USDA	P330-08-00023
USEPA - ISM	EP-W-09-039
USEPA - SOM	EP-W-05-030



Authorized by:

A handwritten signature in black ink, likely belonging to Yihai Ding.

Yihai Ding
Laboratory Director

Technical Reviewer's Initials:

Handwritten initials in black ink, possibly 'YS'.



*** Data Summary Pack ***

Analytical Data Package for Tetra Tech NUS, Inc.

Client Project: CTO-WE56, NSB New London

SDG# SJ1250

Mitkem Workorder ID: J1250

July 12, 2010

Prepared For: Tetra Tech NUS, Inc.
55 Jonspin Road
Wilmington, MA 01887
Attn: Ms. Tobrena Skeen

Prepared By: Mitkem Laboratories
175 Metro Center Boulevard
Warwick, RI 02886
(401) 732-3400

SDG Narrative

Mitkem Laboratories submits the enclosed data package in response to Tetra Tech NUS Inc.'s CTO-WE56, NSB New London project. Under this deliverable, analysis results are presented for seven aqueous samples that were received at Mitkem on June 16, 2010. Samples were analyzed per instructions in the chain of custody form.

The analyses were performed according to EPA SW-846 and State of Massachusetts methods and reported in CLP-type format for Level 4 deliverable.

The following observation and/or deviations are observed for the following analyses:

1. Overall Observation:

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required. Manual integrations are coded to provide the data reviewer justification for such action. The codes are labeled on the ion chromatogram signal (GC/MS signal) and chromatogram for GC based analysis as follows:

- M1 peak tailing or fronting.
- M2 peak co-elution.
- M3 rising or falling baseline.
- M4 retention time shift.
- M5 miscellaneous – under this category, the justification is explained.
- M6 software did not integrate peak
- M7 partial peak integration

The enclosed report includes the originals of all data with the exception of logbook pages and certain initial calibrations. Photocopies of logbook pages are included, with the originals maintained on file at the laboratory. The originals of initial calibrations that are shared among several cases are maintained on file at the laboratory, with photocopies included in the data package.

2. CT ETPH Analysis:

The samples were analyzed for extractable Total Petroleum Hydrocarbons by the CT ETPH method.

Surrogate recovery: spike recoveries were within the QC limits.

Lab control sample/lab control sample duplicate: spike recovery was within the QC limits.

Matrix spike/matrix spike duplicate: duplicate matrix spikes were performed on sample 06MW02-20100615. Spike recoveries and replicate RPD were within the QC limits.

Sample analysis: no unusual occurrences were noted during sample analysis.

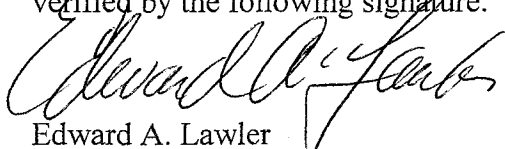
3. MADEP VPH Analysis:

Samples were analyzed for Volatile Petroleum Hydrocarbons (VPH) by the Massachusetts Department of Environmental Protection method version 1.1. These analyses were performed by Mitkem's parent company Spectrum Analytical, of Agawam, Massachusetts. The entire Spectrum report, including notes on these analyses, is enclosed.

Please note that each sample has two data sheets in the Spectrum report. A lab LIMS data sheet, and a Form 1. The format of the Form 1 is not ideal for this analysis, as Spectrum reports these results using units of mg/L for the VPH carbon range analytes, and ug/L for the VPH target compounds. This is correctly reflected on the lab LIMS data sheets, while the Form 1s can only list a single Units for all analytes. In addition, the non-detect values on the Form 1 list the method detection limit, while the lab LIMS data sheets correctly list the reporting limit (lowest calibration standard) as well as the MDL.

All pages in this report have been numbered, starting with the title page and ending with a page saying only "Last Page of Data Report". The Spectrum report pages have two numbers, one unique to the Spectrum report, and the other continuous with the entire SDG data package report.

I certify that this data package is in compliance, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.



Edward A. Lawler
Deputy Director for Quality Services
7/12/10

Mitkem Laboratories**Date:** 07-Jul-10**Client:** Tetra Tech NUS Inc.**Client Sample ID:** 06MW01-20100615**Lab ID:** J1250-01**Project:** CTO-WE56, NSB New London**Collection Date:** 06/15/10 9:40

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_W
Extractable Total Petroleum Hydrocarbon	1.7		0.035	mg/L	1	06/30/2010 10:58	52474
Surrogate: ortho-Terphenyl	67.9		50-150	%REC	1	06/30/2010 10:58	52474
Surrogate: 5a-Androstane	41.4		30-110	%REC	1	06/30/2010 10:58	52474

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Laboratories**Date:** 07-Jul-10**Client:** Tetra Tech NUS Inc.**Client Sample ID:** 06MW02-20100615**Lab ID:** J1250-02**Project:** CTO-WE56, NSB New London**Collection Date:** 06/15/10 11:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_W
Extractable Total Petroleum Hydrocarbon	ND		0.035	mg/L	1	06/29/2010 16:35	52474
Surrogate: ortho-Terphenyl	64.4		50-150	%REC	1	06/29/2010 16:35	52474
Surrogate: 5a-Androstane	61.4		30-110	%REC	1	06/29/2010 16:35	52474

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0005

Mitkem Laboratories

Date: 07-Jul-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06MW03-20100615

Lab ID: J1250-03

Project: CTO-WE56, NSB New London

Collection Date: 06/15/10 12:25

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_W
Extractable Total Petroleum Hydrocarbon	2.2		0.035	mg/L	1	06/29/2010 19:39	52474
Surrogate: ortho-Terphenyl	71.6		50-150	%REC	1	06/29/2010 19:39	52474
Surrogate: 5a-Androstane	71.8		30-110	%REC	1	06/29/2010 19:39	52474

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0006

Mitkem Laboratories

Date: 07-Jul-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06MW04-20100615

Lab ID: J1250-04

Project: CTO-WE56, NSB New London

Collection Date: 06/15/10 14:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_W
Extractable Total Petroleum Hydrocarbon	0.75		0.035	mg/L	1	06/29/2010 20:16	52474
Surrogate: ortho-Terphenyl	65.5		50-150	%REC	1	06/29/2010 20:16	52474
Surrogate: 5a-Androstane	64.7		30-110	%REC	1	06/29/2010 20:16	52474

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0007

Mitkem Laboratories

Date: 07-Jul-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06MW10-20100615

Lab ID: J1250-05

Project: CTO-WE56, NSB New London

Collection Date: 06/15/10 14:45

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_W
Extractable Total Petroleum Hydrocarbon	ND		0.035	mg/L	1	06/29/2010 17:49	52474
Surrogate: ortho-Terphenyl	87.0		50-150	%REC	1	06/29/2010 17:49	52474
Surrogate: 5a-Androstane	88.9		30-110	%REC	1	06/29/2010 17:49	52474

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0008

Mitkem Laboratories

Date: 07-Jul-10

Client: Tetra Tech NUS Inc.

Client Sample ID: 06MW05-20100615

Lab ID: J1250-06

Project: CTO-WE56, NSB New London

Collection Date: 06/15/10 15:20

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
CT ETPH -- CT ETPH by GC-FID							CTETPH_W
Extractable Total Petroleum Hydrocarbon	ND		0.035	mg/L	1	06/29/2010 19:39	52474
Surrogate: ortho-Terphenyl	74.8		50-150	%REC	1	06/29/2010 19:39	52474
Surrogate: 5a-Androstane	75.7		30-110	%REC	1	06/29/2010 19:39	52474

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

0009

CLIENT: Tetra Tech NUS Inc.
 Work Order: J1250
 Project: CTO-WE56, NSB New London

ANALYTICAL QC SUMMARY REPORT
CTETPH_W
CT ETPH -- CT ETPH by GC-FID

Sample ID: MB-52474	SampType: MBLK	TestCode: CTETPH_W	Prep Date: 06/21/10 7:53	Run ID: F1_100629C								
Client ID: MB-52474	Batch ID: 52474	Units: mg/L	Analysis Date: 06/29/10 14:44	SeqNo: 1331038								
Analyte	Result	LOD	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: LCS-52474	SampType: LCS	TestCode: CTETPH_W	Prep Date: 06/21/10 7:53	Run ID: F1_100629C								
Client ID: LCS-52474	Batch ID: 52474	Units: mg/L	Analysis Date: 06/29/10 15:21	SeqNo: 1331039								
Analyte	Result	LOD	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: J1250-02BMS	SampType: MS	TestCode: CTETPH_W	Prep Date: 06/21/10 7:53	Run ID: F1_100629C								
Client ID: 06MW02-20100615	Batch ID: 52474	Units: mg/L	Analysis Date: 06/29/10 17:12	SeqNo: 1331041								
Analyte	Result	LOD	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: J1250-02BMSD	SampType: MSD	TestCode: CTETPH_W	Prep Date: 06/21/10 7:53	Run ID: F1_100629C								
Client ID: 06MW02-20100615	Batch ID: 52474	Units: mg/L	Analysis Date: 06/29/10 17:49	SeqNo: 1331042								
Analyte	Result	LOD	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

2010

Qualifiers: ND - Not Detected at the Limit of Detection S - Recovery outside accepted recovery limits LOD - Limit of Detection B - Analyte detected in the associated Method Blank
 m10.07.02 A J - Analyte detected below Limit of Quantitation R - RPD outside accepted recovery limits LOQ - Limit of Quantitation ^ Qualified to the Limit of Detection (LOD)



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Featuring
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Form 1 Summary Pack

SDG 13935

**Work Orders
SB13935**

Sample Identification

06MW01-20100615

SB13935-01

Client Project #

J1250

Matrix

Aqueous

Collection Date/Time

15-Jun-10 09:40

Received

16-Jun-10

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Volatile Organic Compounds													
<u>VPH Aliphatic/Aromatic Carbon Ranges</u>													
Prepared by method VPH - EPA 5030B													
	C5-C8 Aliphatic Hydrocarbons	0.156		mg/l	0.150	0.129	10	+MADEP VPH 5/2004 Rev. 1.1	25-Jun-10	25-Jun-10	MP	1013482	
	C9-C12 Aliphatic Hydrocarbons	1.46		mg/l	0.0500	0.0361	10	"	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	0.726		mg/l	0.0500	0.0448	10	"	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	0.375		mg/l	0.150	0.129	10	"	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	2.18		mg/l	0.0500	0.0361	10	"	"	"	"	"	
<u>VPH Target Analytes</u>													
Prepared by method VPH - EPA 5030B													
71-43-2	Benzene	BDL	U	µg/l	10.0	5.4	10	"	"	"	"	"	
100-41-4	Ethylbenzene	47.4		µg/l	10.0	7.3	10	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BDL	U	µg/l	10.0	5.5	10	"	"	"	"	"	
91-20-3	Naphthalene	183		µg/l	10.0	10.0	10	"	"	"	"	"	
108-88-3	Toluene	36.2		µg/l	10.0	6.9	10	"	"	"	"	"	
179601-23-1	m,p-Xylene	65.0		µg/l	20.0	14.1	10	"	"	"	"	"	
95-47-6	o-Xylene	70.5		µg/l	10.0	6.5	10	"	"	"	"	"	
<u>Surrogate recoveries:</u>													
615-59-8	2,5-Dibromotoluene (FID)	113			70-130 %			"	"	"	"	"	
615-59-8	2,5-Dibromotoluene (PID)	102			70-130 %			"	"	"	"	"	

This laboratory report is not valid without an authorized signature on the cover page.

* Reportable Detection Limit

BDL = Below Detection Limit

BRL = Below Reporting Limit

Page 3 of 16

0012

FORM I - ORGANIC ANALYSIS DATA SHEET

+MADEP VPH 5/2004 Rev. 1.1

06MW01-20100615

Laboratory: Spectrum Analytical, Inc. - Agawam, MA SDG: 13935
 Client: Mitkem Laboratories Project: See Chain of Custody
 Project Number: J1250 Received: 06/16/10 17:06
 Matrix: Aqueous Laboratory ID: SB13935-01 File ID: 13935-01.D
 Sampled: 06/15/10 09:40 Prepared: 06/25/10 08:19 Analyzed: 06/25/10 10:44
 % Solids: Preparation: VPH - EPA 5030B Initial/Final: 5 ml / 5 ml
 Batch: 1013482 Sequence: S005812 Calibration: 1001034 Instrument: FID2

CAS NO.	COMPOUND	DILUTION	CONC. (mg/l) 6-11	Q
ALIH(5-8)	C5-C8 Aliphatic Hydrocarbons	10	0.156	
ALIH(9-12)	C9-C12 Aliphatic Hydrocarbons	10	1.46	
AROH(9-10)	C9-C10 Aromatic Hydrocarbons	10	0.726	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	10	0.375	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	10	2.18	
71-43-2	Benzene	10	5.4	U
100-41-4	Ethylbenzene	10	47.4	
1634-04-4	Methyl tert-butyl ether	10	5.5	U
91-20-3	Naphthalene	10	183	
108-88-3	Toluene	10	36.2	
179601-23-1	m,p-Xylene	10	65.0	
95-47-6	o-Xylene	10	70.5	

* Values outside of QC limits

Sample Identification

06MW02-20100615

SB13935-02

Client Project #

J1250

Matrix

Aqueous

Collection Date/Time

15-Jun-10 11:00

Received

16-Jun-10

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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Volatile Organic CompoundsVPH Aliphatic/Aromatic Carbon Ranges

Prepared by method VPH - EPA 5030B

C5-C8 Aliphatic Hydrocarbons	BDL	U	mg/l	0.0750	0.0647	5	+MADEP VPH 5/2004 Rev. 1.1	24-Jun-10	24-Jun-10	MP	1013360
C9-C12 Aliphatic Hydrocarbons	BDL	U	mg/l	0.0250	0.0180	5	"	"	"	"	"
C9-C10 Aromatic Hydrocarbons	BDL	U	mg/l	0.0250	0.0224	5	"	"	"	"	"
Unadjusted C5-C8 Aliphatic Hydrocarbons	BDL	U	mg/l	0.0750	0.0647	5	"	"	"	"	"
Unadjusted C9-C12 Aliphatic Hydrocarbons	0.0245	J	mg/l	0.0250	0.0180	5	"	"	"	"	"

Re-analysis of VPH Aliphatic/Aromatic Carbon Ranges

Prepared by method VPH - EPA 5030B

C5-C8 Aliphatic Hydrocarbons	BDL	U	mg/l	0.0750	0.0647	1	+MADEP VPH 5/2004 Rev. 1.1	29-Jun-10	29-Jun-10	MP	1013746
C9-C12 Aliphatic Hydrocarbons	BDL	U	mg/l	0.0250	0.0180	1	"	"	"	"	"
C9-C10 Aromatic Hydrocarbons	BDL	U	mg/l	0.0250	0.0224	1	"	"	"	"	"
Unadjusted C5-C8 Aliphatic Hydrocarbons	BDL	U	mg/l	0.0750	0.0647	1	"	"	"	"	"
Unadjusted C9-C12 Aliphatic Hydrocarbons	0.0214	J	mg/l	0.0250	0.0180	1	"	"	"	"	"

VPH Target Analytes

Prepared by method VPH - EPA 5030B

71-43-2	Benzene	BDL	U	µg/l	5.0	2.7	5	+MADEP VPH 5/2004 Rev. 1.1	24-Jun-10	24-Jun-10	MP	1013360
100-41-4	Ethylbenzene	BDL	U	µg/l	5.0	3.7	5	"	"	"	"	"
1634-04-4	Methyl tert-butyl ether	BDL	U	µg/l	5.0	2.7	5	"	"	"	"	"
91-20-3	Naphthalene	BDL	U	µg/l	5.0	5.0	5	"	"	"	"	"
108-88-3	Toluene	BDL	U	µg/l	5.0	3.5	5	"	"	"	"	"
179601-23-1	m,p-Xylene	BDL	U	µg/l	10.0	7.0	5	"	"	"	"	"
95-47-6	o-Xylene	BDL	U	µg/l	5.0	3.3	5	"	"	"	"	"

Surrogate recoveries:

615-59-8	2,5-Dibromotoluene (FID)	122	70-130 %	"	"	"	"	"
615-59-8	2,5-Dibromotoluene (PID)	107	70-130 %	"	"	"	"	"

Re-analysis of VPH Target Analytes

Prepared by method VPH - EPA 5030B

71-43-2	Benzene	BDL	U	µg/l	5.0	2.7	1	+MADEP VPH 5/2004 Rev. 1.1	29-Jun-10	29-Jun-10	MP	1013746
100-41-4	Ethylbenzene	BDL	U	µg/l	5.0	3.7	1	"	"	"	"	"
1634-04-4	Methyl tert-butyl ether	BDL	U	µg/l	5.0	2.7	1	"	"	"	"	"
91-20-3	Naphthalene	BDL	U	µg/l	5.0	5.0	1	"	"	"	"	"
108-88-3	Toluene	BDL	U	µg/l	5.0	3.5	1	"	"	"	"	"
179601-23-1	m,p-Xylene	BDL	U	µg/l	10.0	7.0	1	"	"	"	"	"
95-47-6	o-Xylene	BDL	U	µg/l	5.0	3.3	1	"	"	"	"	"

Surrogate recoveries:

615-59-8	2,5-Dibromotoluene (FID)	115	70-130 %	"	"	"	"	"
615-59-8	2,5-Dibromotoluene (PID)	101	70-130 %	"	"	"	"	"

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* Reportable Detection Limit

BDL = Below Detection Limit

BRL = Below Reporting Limit

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0014

FORM I - ORGANIC ANALYSIS DATA SHEET

+MADEP VPH 5/2004 Rev. 1.1

06MW02-20100615

Laboratory: Spectrum Analytical, Inc. - Agawam, MA SDG: 13935
 Client: Mitkem Laboratories Project: See Chain of Custody
 Project Number: J1250 Received: 06/16/10 17:06
 Matrix: Aqueous Laboratory ID: SB13935-02 File ID: 13935-02.D
 Sampled: 06/15/10 11:00 Prepared: 06/24/10 08:00 Analyzed: 06/24/10 17:17
 % Solids: Preparation: VPH - EPA 5030B Initial/Final: 5 ml / 5 ml
 Batch: 1013360 Sequence: S005655 Calibration: 1001034 Instrument: FID2

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L) ^{6/14/10}	Q
ALIH(5-8)	C5-C8 Aliphatic Hydrocarbons	5	0.0647	U
ALIH(9-12)	C9-C12 Aliphatic Hydrocarbons	5	0.0180	U
AROH(9-10)	C9-C10 Aromatic Hydrocarbons	5	0.0224	U
	Unadjusted C5-C8 Aliphatic Hydrocarbons	5	0.0647	U
	Unadjusted C9-C12 Aliphatic Hydrocarbons	5	0.0245	J
71-43-2	Benzene	5	2.7	U
100-41-4	Ethylbenzene	5	3.7	U
1634-04-4	Methyl tert-butyl ether	5	2.7	U
91-20-3	Naphthalene	5	5.0	U
108-88-3	Toluene	5	3.5	U
179601-23-1	m,p-Xylene	5	7.0	U
95-47-6	o-Xylene	5	3.3	U

* Values outside of QC limits

FORM I - ORGANIC ANALYSIS DATA SHEET

+MADEP VPH 5/2004 Rev. 1.1

06MW02-20100615

Laboratory: Spectrum Analytical, Inc. - Agawam, MA SDG: 13935
 Client: Mitkem Laboratories Project: See Chain of Custody
 Project Number: J1250 Received: 06/16/10 17:06
 Matrix: Aqueous Laboratory ID: SB13935-02RE1 File ID: 13935-02r.D
 Sampled: 06/15/10 11:00 Prepared: 06/29/10 09:03 Analyzed: 06/29/10 14:21
 % Solids: Preparation: VPH - EPA 5030B Initial/Final: 5 ml / 5 ml
 Batch: 1013746 Sequence: S005844 Calibration: 1001034 Instrument: FID2

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L) <i>6-16/10</i>	Q
ALIH(5-8)	C5-C8 Aliphatic Hydrocarbons	1	0.0647	U
ALIH(9-12)	C9-C12 Aliphatic Hydrocarbons	1	0.0180	U
AROH(9-10)	C9-C10 Aromatic Hydrocarbons	1	0.0224	U
	Unadjusted C5-C8 Aliphatic Hydrocarbons	1	0.0647	U
	Unadjusted C9-C12 Aliphatic Hydrocarbons	1	0.0214	J
71-43-2	Benzene	1	2.7	U
100-41-4	Ethylbenzene	1	3.7	U
1634-04-4	Methyl tert-butyl ether	1	2.7	U
91-20-3	Naphthalene	1	5.0	U
108-88-3	Toluene	1	3.5	U
179601-23-1	m,p-Xylene	1	7.0	U
95-47-6	o-Xylene	1	3.3	U

* Values outside of QC limits

Sample Identification

06MW03-20100615

SB13935-03

Client Project #

J1250

Matrix

Aqueous

Collection Date/Time

15-Jun-10 12:25

Received

16-Jun-10

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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Volatile Organic CompoundsVPH Aliphatic/Aromatic Carbon Ranges

Prepared by method VPH - EPA 5030B

C5-C8 Aliphatic Hydrocarbons	0.122		mg/l	0.0750	0.0647	5	+MADEP VPH 5/2004 Rev. 1.1	25-Jun-10	25-Jun-10	MP	1013482
C9-C12 Aliphatic Hydrocarbons	0.594		mg/l	0.0250	0.0180	5	"	"	"	"	"
C9-C10 Aromatic Hydrocarbons	0.303		mg/l	0.0250	0.0224	5	"	"	"	"	"
Unadjusted C5-C8 Aliphatic Hydrocarbons	0.265		mg/l	0.0750	0.0647	5	"	"	"	"	"
Unadjusted C9-C12 Aliphatic Hydrocarbons	0.897		mg/l	0.0250	0.0180	5	"	"	"	"	"

VPH Target Analytes

Prepared by method VPH - EPA 5030B

71-43-2	Benzene	22.2		µg/l	5.0	2.7	5	"	"	"	"	"
100-41-4	Ethylbenzene	41.4		µg/l	5.0	3.7	5	"	"	"	"	"
1634-04-4	Methyl tert-butyl ether	BDL	U	µg/l	5.0	2.7	5	"	"	"	"	"
91-20-3	Naphthalene	111		µg/l	5.0	5.0	5	"	"	"	"	"
108-88-3	Toluene	5.6		µg/l	5.0	3.5	5	"	"	"	"	"
179601-23-1	m,p-Xylene	58.4		µg/l	10.0	7.0	5	"	"	"	"	"
95-47-6	o-Xylene	15.9		µg/l	5.0	3.3	5	"	"	"	"	"

Surrogate recoveries:

615-59-8	2,5-Dibromotoluene (FID)	117			70-130 %		"	"	"	"	"
615-59-8	2,5-Dibromotoluene (PID)	108			70-130 %		"	"	"	"	"

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* Reportable Detection Limit

BDL = Below Detection Limit

BRL = Below Reporting Limit

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0017

FORM I - ORGANIC ANALYSIS DATA SHEET

+MADEP VPH 5/2004 Rev. 1.1

06MW03-20100615

Laboratory: Spectrum Analytical, Inc. - Agawam, MA SDG: 13935
 Client: Mitkem Laboratories Project: See Chain of Custody
 Project Number: J1250 Received: 06/16/10 17:06
 Matrix: Aqueous Laboratory ID: SBI3935-03 File ID: 13935-03.D
 Sampled: 06/15/10 12:25 Prepared: 06/25/10 08:19 Analyzed: 06/25/10 10:17
 % Solids: Preparation: VPH - EPA 5030B Initial/Final: 5 ml / 5 ml
 Batch: 1013482 Sequence: S005812 Calibration: 1001034 Instrument: FID2

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L) mg/L <i>B-7410</i>	Q
ALIH(5-8)	C5-C8 Aliphatic Hydrocarbons	5	0.122	
ALIH(9-12)	C9-C12 Aliphatic Hydrocarbons	5	0.594	
AROH(9-10)	C9-C10 Aromatic Hydrocarbons	5	0.303	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	5	0.265	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	5	0.897	
71-43-2	Benzene	5	22.2	
100-41-4	Ethylbenzene	5	41.4	
1634-04-4	Methyl tert-butyl ether	5	2.7	U
91-20-3	Naphthalene	5	111	
108-88-3	Toluene	5	5.6	
179601-23-1	m,p-Xylene	5	58.4	
95-47-6	o-Xylene	5	15.9	

* Values outside of QC limits

Sample Identification

06MW04-20100615

SB13935-04

Client Project #

J1250

Matrix

Aqueous

Collection Date/Time

15-Jun-10 14:10

Received

16-Jun-10

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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Volatile Organic CompoundsVPH Aliphatic/Aromatic Carbon RangesPrepared by method VPH - EPA 5030B

C5-C8 Aliphatic Hydrocarbons	BDL	U	mg/l	0.0750	0.0647	5	+MADEP VPH 5/2004 Rev. 1.1	24-Jun-10	24-Jun-10	MP	1013360
C9-C12 Aliphatic Hydrocarbons	0.0302		mg/l	0.0250	0.0180	5	"	"	"	"	"
C9-C10 Aromatic Hydrocarbons	BDL	U	mg/l	0.0250	0.0224	5	"	"	"	"	"
Unadjusted C5-C8 Aliphatic Hydrocarbons	BDL	U	mg/l	0.0750	0.0647	5	"	"	"	"	"
Unadjusted C9-C12 Aliphatic Hydrocarbons	0.0426		mg/l	0.0250	0.0180	5	"	"	"	"	"

VPH Target AnalytesPrepared by method VPH - EPA 5030B

71-43-2	Benzene	BDL	U	µg/l	5.0	2.7	5	"	"	"	"	"
100-41-4	Ethylbenzene	BDL	U	µg/l	5.0	3.7	5	"	"	"	"	"
1634-04-4	Methyl tert-butyl ether	BDL	U	µg/l	5.0	2.7	5	"	"	"	"	"
91-20-3	Naphthalene	BDL	U	µg/l	5.0	5.0	5	"	"	"	"	"
108-88-3	Toluene	BDL	U	µg/l	5.0	3.5	5	"	"	"	"	"
179601-23-1	m,p-Xylene	BDL	U	µg/l	10.0	7.0	5	"	"	"	"	"
95-47-6	o-Xylene	BDL	U	µg/l	5.0	3.3	5	"	"	"	"	"

Surrogate recoveries:

615-59-8	2,5-Dibromotoluene (FID)	122			70-130 %		"	"	"	"	"
615-59-8	2,5-Dibromotoluene (PID)	107			70-130 %		"	"	"	"	"

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* Reportable Detection Limit

BDL = Below Detection Limit

BRL = Below Reporting Limit

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0019

FORM I - ORGANIC ANALYSIS DATA SHEET

+MADEP VPH 5/2004 Rev. 1.1

06MW04-20100615

Laboratory: Spectrum Analytical, Inc. - Agawam, MA SDG: 13935
 Client: Mitkem Laboratories Project: See Chain of Custody
 Project Number: J1250 Received: 06/16/10 17:06
 Matrix: Aqueous Laboratory ID: SB13935-04 File ID: 13935-04.D
 Sampled: 06/15/10 14:10 Prepared: 06/24/10 08:00 Analyzed: 06/24/10 18:12
 % Solids: Preparation: VPH - EPA 5030B Initial/Final: 5 ml / 5 ml
 Batch: 1013360 Sequence: S005655 Calibration: 1001034 Instrument: FID2

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L) <i>8/19/10</i>	Q
ALIH(5-8)	C5-C8 Aliphatic Hydrocarbons	5	0.0647	U
ALIH(9-12)	C9-C12 Aliphatic Hydrocarbons	5	0.0302	
AROH(9-10)	C9-C10 Aromatic Hydrocarbons	5	0.0224	U
	Unadjusted C5-C8 Aliphatic Hydrocarbons	5	0.0647	U
	Unadjusted C9-C12 Aliphatic Hydrocarbons	5	0.0426	
71-43-2	Benzene	5	2.7	U
100-41-4	Ethylbenzene	5	3.7	U
1634-04-4	Methyl tert-butyl ether	5	2.7	U
91-20-3	Naphthalene	5	5.0	U
108-88-3	Toluene	5	3.5	U
179601-23-1	m,p-Xylene	5	7.0	U
95-47-6	o-Xylene	5	3.3	U

* Values outside of QC limits

Sample Identification

06MW10-20100615

SB13935-05

Client Project #

J1250

Matrix

Aqueous

Collection Date/Time

15-Jun-10 14:45

Received

16-Jun-10

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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Volatile Organic CompoundsVPH Aliphatic/Aromatic Carbon RangesPrepared by method VPH - EPA 5030B

C5-C8 Aliphatic Hydrocarbons	BDL	U	mg/l	0.0750	0.0647	5	+MADEP VPH 5/2004 Rev. 1.1	24-Jun-10	24-Jun-10	MP	1013360
C9-C12 Aliphatic Hydrocarbons	BDL	U	mg/l	0.0250	0.0180	5	"	"	"	"	"
C9-C10 Aromatic Hydrocarbons	BDL	U	mg/l	0.0250	0.0224	5	"	"	"	"	"
Unadjusted C5-C8 Aliphatic Hydrocarbons	BDL	U	mg/l	0.0750	0.0647	5	"	"	"	"	"
Unadjusted C9-C12 Aliphatic Hydrocarbons	BDL	U	mg/l	0.0250	0.0180	5	"	"	"	"	"

VPH Target AnalytesPrepared by method VPH - EPA 5030B

71-43-2	Benzene	BDL	U	µg/l	5.0	2.7	5	"	"	"	"	"
100-41-4	Ethylbenzene	BDL	U	µg/l	5.0	3.7	5	"	"	"	"	"
1634-04-4	Methyl tert-butyl ether	BDL	U	µg/l	5.0	2.7	5	"	"	"	"	"
91-20-3	Naphthalene	BDL	U	µg/l	5.0	5.0	5	"	"	"	"	"
108-88-3	Toluene	BDL	U	µg/l	5.0	3.5	5	"	"	"	"	"
179601-23-1	m,p-Xylene	BDL	U	µg/l	10.0	7.0	5	"	"	"	"	"
95-47-6	o-Xylene	BDL	U	µg/l	5.0	3.3	5	"	"	"	"	"

Surrogate recoveries:

615-59-8	2,5-Dibromotoluene (FID)	124			70-130 %		"	"	"	"	"
615-59-8	2,5-Dibromotoluene (PID)	108			70-130 %		"	"	"	"	"

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* Reportable Detection Limit

BDL = Below Detection Limit

BRL = Below Reporting Limit

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0021

FORM I - ORGANIC ANALYSIS DATA SHEET**+MADEP VPH 5/2004 Rev. 1.1**

06MW10-20100615

Laboratory: Spectrum Analytical, Inc. - Agawam, MA SDG: 13935
Client: Mitkem Laboratories Project: See Chain of Custody
Project Number: J1250 Received: 06/16/10 17:06
Matrix: Aqueous Laboratory ID: SB13935-05 File ID: 13935-05.D
Sampled: 06/15/10 14:45 Prepared: 06/24/10 08:00 Analyzed: 06/24/10 18:40
% Solids: Preparation: VPH - EPA 5030B Initial/Final: 5 ml / 5 ml
Batch: 1013360 Sequence: S005655 Calibration: 1001034 Instrument: FID2

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L) <i>0.11/10</i>	Q
ALIH(5-8)	C5-C8 Aliphatic Hydrocarbons	5	0.0647	U
ALIH(9-12)	C9-C12 Aliphatic Hydrocarbons	5	0.0180	U
AROH(9-10)	C9-C10 Aromatic Hydrocarbons	5	0.0224	U
	Unadjusted C5-C8 Aliphatic Hydrocarbons	5	0.0647	U
	Unadjusted C9-C12 Aliphatic Hydrocarbons	5	0.0180	U
71-43-2	Benzene	5	2.7	U
100-41-4	Ethylbenzene	5	3.7	U
1634-04-4	Methyl tert-butyl ether	5	2.7	U
91-20-3	Naphthalene	5	5.0	U
108-88-3	Toluene	5	3.5	U
179601-23-1	m,p-Xylene	5	7.0	U
95-47-6	o-Xylene	5	3.3	U

* Values outside of QC limits

Sample Identification

06MW05-20100615

SB13935-06

Client Project #

J1250

Matrix

Aqueous

Collection Date/Time

15-Jun-10 15:20

Received

16-Jun-10

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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Volatile Organic CompoundsVPH Aliphatic/Aromatic Carbon RangesPrepared by method VPH - EPA 5030B

C5-C8 Aliphatic Hydrocarbons	BDL	U	mg/l	0.0750	0.0647	5	+MADEP VPH 5/2004 Rev. 1.1	24-Jun-10	24-Jun-10	MP	1013360
C9-C12 Aliphatic Hydrocarbons	BDL	U	mg/l	0.0250	0.0180	5	"	"	"	"	"
C9-C10 Aromatic Hydrocarbons	BDL	U	mg/l	0.0250	0.0224	5	"	"	"	"	"
Unadjusted C5-C8 Aliphatic Hydrocarbons	BDL	U	mg/l	0.0750	0.0647	5	"	"	"	"	"
Unadjusted C9-C12 Aliphatic Hydrocarbons	BDL	U	mg/l	0.0250	0.0180	5	"	"	"	"	"

VPH Target AnalytesPrepared by method VPH - EPA 5030B

71-43-2	Benzene	BDL	U	µg/l	5.0	2.7	5	"	"	"	"	"
100-41-4	Ethylbenzene	BDL	U	µg/l	5.0	3.7	5	"	"	"	"	"
1634-04-4	Methyl tert-butyl ether	BDL	U	µg/l	5.0	2.7	5	"	"	"	"	"
91-20-3	Naphthalene	BDL	U	µg/l	5.0	5.0	5	"	"	"	"	"
108-88-3	Toluene	BDL	U	µg/l	5.0	3.5	5	"	"	"	"	"
179601-23-1	m,p-Xylene	BDL	U	µg/l	10.0	7.0	5	"	"	"	"	"
95-47-6	o-Xylene	BDL	U	µg/l	5.0	3.3	5	"	"	"	"	"

Surrogate recoveries:

615-59-8	2,5-Dibromotoluene (FID)	121			70-130 %		"	"	"	"	"
615-59-8	2,5-Dibromotoluene (PID)	106			70-130 %		"	"	"	"	"

This laboratory report is not valid without an authorized signature on the cover page.

* Reportable Detection Limit

BDL = Below Detection Limit

BRL = Below Reporting Limit

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0023

FORM I - ORGANIC ANALYSIS DATA SHEET**+MADEP VPH 5/2004 Rev. 1.1**

06MW05-20100615

Laboratory: Spectrum Analytical, Inc. - Agawam, MA SDG: 13935
Client: Mitkem Laboratories Project: See Chain of Custody
Project Number: J1250 Received: 06/16/10 17:06
Matrix: Aqueous Laboratory ID: SB13935-06 File ID: 13935-06.D
Sampled: 06/15/10 15:20 Prepared: 06/24/10 08:00 Analyzed: 06/24/10 19:08
% Solids: Preparation: VPH - EPA 5030B Initial/Final: 5 ml / 5 ml
Batch: 1013360 Sequence: S005655 Calibration: 1001034 Instrument: FID2

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L) 6/19/10	Q
ALIH(5-8)	C5-C8 Aliphatic Hydrocarbons	5	0.0647	U
ALIH(9-12)	C9-C12 Aliphatic Hydrocarbons	5	0.0180	U
AROH(9-10)	C9-C10 Aromatic Hydrocarbons	5	0.0224	U
	Unadjusted C5-C8 Aliphatic Hydrocarbons	5	0.0647	U
	Unadjusted C9-C12 Aliphatic Hydrocarbons	5	0.0180	U
71-43-2	Benzene	5	2.7	U
100-41-4	Ethylbenzene	5	3.7	U
1634-04-4	Methyl tert-butyl ether	5	2.7	U
91-20-3	Naphthalene	5	5.0	U
108-88-3	Toluene	5	3.5	U
179601-23-1	m,p-Xylene	5	7.0	U
95-47-6	o-Xylene	5	3.3	U

* Values outside of QC limits

Sample Identification

Trip Blank

SB13935-07

Client Project #

J1250

Matrix

Aqueous

Collection Date/Time

15-Jun-10 08:00

Received

16-Jun-10

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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Volatile Organic CompoundsVPH Aliphatic/Aromatic Carbon Ranges

Prepared by method VPH - EPA 5030B

C5-C8 Aliphatic Hydrocarbons	BDL	U	mg/l	0.0750	0.0647	1	+MADEP VPH 5/2004 Rev. 1.1	24-Jun-10	24-Jun-10	MP	1013360
C9-C12 Aliphatic Hydrocarbons	BDL	U	mg/l	0.0250	0.0180	1	"	"	"	"	"
C9-C10 Aromatic Hydrocarbons	BDL	U	mg/l	0.0250	0.0224	1	"	"	"	"	"
Unadjusted C5-C8 Aliphatic Hydrocarbons	BDL	U	mg/l	0.0750	0.0647	1	"	"	"	"	"
Unadjusted C9-C12 Aliphatic Hydrocarbons	BDL	U	mg/l	0.0250	0.0180	1	"	"	"	"	"

VPH Target Analytes

Prepared by method VPH - EPA 5030B

71-43-2	Benzene	BDL	U	µg/l	5.0	2.7	1	"	"	"	"	"
100-41-4	Ethylbenzene	BDL	U	µg/l	5.0	3.7	1	"	"	"	"	"
1634-04-4	Methyl tert-butyl ether	BDL	U	µg/l	5.0	2.7	1	"	"	"	"	"
91-20-3	Naphthalene	BDL	U	µg/l	5.0	5.0	1	"	"	"	"	"
106-88-3	Toluene	BDL	U	µg/l	5.0	3.5	1	"	"	"	"	"
179601-23-1	m,p-Xylene	BDL	U	µg/l	10.0	7.0	1	"	"	"	"	"
95-47-6	o-Xylene	BDL	U	µg/l	5.0	3.3	1	"	"	"	"	"

Surrogate recoveries:

615-59-8	2,5-Dibromotoluene (FID)	108		70-130 %	"	"	"	"	"
615-59-8	2,5-Dibromotoluene (PID)	95		70-130 %	"	"	"	"	"

This laboratory report is not valid without an authorized signature on the cover page.

* Reportable Detection Limit

BDL = Below Detection Limit

BRL = Below Reporting Limit

Page 9 of 16

0025

FORM I - ORGANIC ANALYSIS DATA SHEET**+MADEP VPH 5/2004 Rev. 1.1****Trip Blank**

Laboratory: Spectrum Analytical, Inc. - Agawam, MA SDG: 13935
Client: Mitkem Laboratories Project: See Chain of Custody
Project Number: J1250 Received: 06/16/10 17:06
Matrix: Aqueous Laboratory ID: SB13935-07 File ID: 13935-07.D
Sampled: 06/15/10 08:00 Prepared: 06/24/10 08:00 Analyzed: 06/24/10 19:37
% Solids: Preparation: VPH - EPA 5030B Initial/Final: 5 ml / 5 ml
Batch: 1013360 Sequence: S005655 Calibration: 1001034 Instrument: FID2

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L) 0.76/μl	Q
ALIH(5-8)	C5-C8 Aliphatic Hydrocarbons	1	0.0647	U
ALIH(9-12)	C9-C12 Aliphatic Hydrocarbons	1	0.0180	U
AROH(9-10)	C9-C10 Aromatic Hydrocarbons	1	0.0224	U
	Unadjusted C5-C8 Aliphatic Hydrocarbons	1	0.0647	U
	Unadjusted C9-C12 Aliphatic Hydrocarbons	1	0.0180	U
71-43-2	Benzene	1	2.7	U
100-41-4	Ethylbenzene	1	3.7	U
1634-04-4	Methyl tert-butyl ether	1	2.7	U
91-20-3	Naphthalene	1	5.0	U
108-88-3	Toluene	1	3.5	U
179601-23-1	m,p-Xylene	1	7.0	U
95-47-6	o-Xylene	1	3.3	U

* Values outside of QC limits

APPENDIX G

IDW Disposal Documentation

NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number CT 4170022020	2. Page 1 of 1	3. Emergency Response Phone 800-698-1865	4. Waste Tracking Number
5. Generator's Name and Mailing Address U.S. Naval Submarine Base Box 400 - Environmental Bldg. 562 Groton CT 06349			Generator's Site Address (if different than mailing address) U.S. Naval Submarine Base (Polaris Park) Route 12 - Crystal Lake Road Groton CT 06349		
Generator's Phone: 860 694 54298					
6. Transporter 1 Company Name New England Disposal Technologies, Inc.			U.S. EPA ID Number MAC300008059		
7. Transporter 2 Company Name			U.S. EPA ID Number		
8. Designated Facility Name and Site Address Vexor Technology, Inc. 955 West Smith Road Medina OH 44256			U.S. EPA ID Number		
Facility's Phone: 330 721-9773			OH D077772895		
9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Wt./Vol.
		No.	Type		
1. Non-RCRA, non-DOT Regulated Material (soil)			DM		P
2.					
3.					
4.					
13. Special Handling Instructions and Additional Information TYEX18333					
Job# 16-11002					
14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.					
Generator's/Officer's Printed/Typed Name			Signature		Month Day Year
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____					
Transporter Signature (for exports only): _____ Date leaving U.S.: _____					
16. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name			Signature		Month Day Year
Transporter 2 Printed/Typed Name			Signature		Month Day Year
17. Discrepancy					
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
17b. Alternate Facility (or Generator)			Manifest Reference Number: _____ U.S. EPA ID Number		
Facility's Phone: _____					
17c. Signature of Alternate Facility (or Generator)			Signature		Month Day Year
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a					
Printed/Typed Name			Signature		Month Day Year

**NON-HAZARDOUS
WASTE MANIFEST**

1. Generator ID Number
CT 4170022020

2. Page 1 of 1
3. Emergency Response Phone
800-698-1865

4. Waste Tracking Number

5. Generator's Name and Mailing Address
**U.S. Naval Submarine Base
Box 400 - Environmental Bldg. 562
Groton CT 06349**

Generator's Site Address (if different than mailing address)
**U.S. Naval Submarine Base (Polaris Park)
Route 12 - Crystal Lake Road
Groton CT 06349**

Generator's Phone: **860 694-4298**

6. Transporter 1 Company Name
New England Disposal Technologies, Inc.

U.S. EPA ID Number
MAC300008059

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

**Dyneco, Inc.
6520 Georgia Street
Detroit MI 48211**

U.S. EPA ID Number

Facility's Phone: **313 571-7140**

MID074259565

9. Waste Shipping Name and Description

10. Containers

11. Total
Quantity

12. Unit
Wt./Vol.

1. Non-RCRA, non-DOT Regulated Material
(water)

No.

Type

DM

G

2.

3.

4.

13. Special Handling Instructions and Additional Information

11/7/23

Job# 16-11002

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Officer's Printed/Typed Name

Signature

Month Day Year

15. International Shipments

☐ Import to U.S.

☐ Export from U.S.

Port of entry/exit:

Transporter Signature (for exports only):

Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Signature

Month Day Year

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

☐ Quantity

☐ Type

☐ Residue

☐ Partial Rejection

☐ Full Rejection

17b. Alternate Facility (or Generator)

Manifest Reference Number:

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in item 17a

Printed/Typed Name

Signature

Month Day Year

VEXOR Technology, Inc.

955 West Smith Road
Medina, Ohio 44256
Phone: 330-721-9773
FAX: 330-721-9438
EPA ID# OHD 077772895
www.vexortechnology.com

MATERIAL CHARACTERIZATION**For VEXOR Use Only**

Approval # _____
Sample # _____
Sales Rep _____
Date Submitted _____

Email: mail@vexortechnology.com

Generator	Naval Submarine Base New London			Bill To Name	New England Disposal Technologies						
Site Address	Crystal Lake Rd. & Rt. 12			Site Address	83 Gilmore Drive						
City	Groton	State	MA	Zip	01590	City	Sutton	State	MA	Zip	01590
Phone	860-694-4298			Fax		Phone	508-234-4440			Fax	508-234-4441
EPA ID #	CT4170022020			SIC Code		Business Contact	Lon Cohen				
Technical Contact	Linda J. Tirrell					Title	Business Dev. Mgr			Email	lcohen@NEDTinc.com
Title	Haz Waste Program Mgr			Email							

MATERIAL DESCRIPTION

Name and Description of Material: Polaris Park Soil Investigation Derived Waste

Process Generating Material: Site investigation soil boring & monitoring well installation U.S. EPA Hazardous Waste: ☐ Yes ☒ No

Proper DOT Shipping Name: Non RCRA Non DOT Regulated Waste

Method of Shipment: ☐ Bulk ☒ Drum ☐ Tote ☐ Cubic Yard Box ☐ Other/Explain: Pallets

Est. Annual Volume: _____ Cu. Yds. _____ Tons _____ Gallons 15-20 Drums _____ container material (metal, plastic, etc.)

Frequency: ☒ One Time Only ☐ Daily ☐ Weekly ☐ Monthly ☐ Other/Explain _____ Approximate Drum Weight _____

Special Handling Instructions: None

Preferred Disposal Method: ☒ Landfill ☐ Waste to Energy ☐ Recycling ☐ Other _____

MATERIAL PROPERTIES AT 78°

- a) Physical State: ☒ Solid ☐ Semi-Solid ☐ Powder ☐ Liquid ☐ Phases
- b) Reactivity: ☐ Water reactive ☐ Acid Reactive ☐ Alkaline Reactive ☐ Oxidizer ☐ Autocetting ☒ None
- c) Flash Point, °F: ☐ ≤72 ☐ >72-100 ☐ >100-140 ☐ >140-200 ☐ >200 ☒ N/A
- d) S.G./Density about 1
- e) pH: ☐ ≤2 ☐ >2-6 ☒ >6-9 ☐ >9-12.5 ☐ ≥12.5 ☐ N/A
- f) Odor: ☒ None ☐ Mild ☐ Strong: Describe _____
- g) Color: Dirt Brown
- h) Total Organic Halogen (TOX) ☒ 0 ppm ☐ >1000 ppm* If this material is considered "USED OIL" and is to be managed as a "USED OIL", please complete the "USED OIL" ADDENDUM and attach to this profile.
- i) PCB Content: ☒ 0 ppm ☐ 1-49 ppm* ☐ ≥50 ppm * Supporting analysis and documentation required.

MATERIAL COMPOSITION: List all components, must add up to 100%.

Constituent	Range % (wt-vol)	
	Min	Max
Soil,	90	100
Sampling Glasware, Used PPE, etc.	0	10
A combined total should equal 100%.		

Above is based on: ☐ Generator Knowledge ☒ Analytical Data MSDS

Please attach analysis, TCLP information and appropriate MSDS sheets.

SAMPLE SUBMITTED WITH THIS PROFILE: ☐ Yes ☒ No**GENERATOR CERTIFICATION**

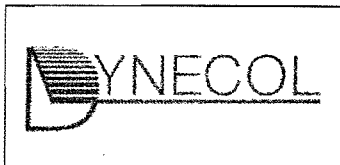
I hereby certify that to the best of my knowledge and belief, the information contained herein is a true and accurate description of the material being offered for disposal. Samples of this material submitted to VEXOR are representative of the material described in this profile. I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for treatment, processing or recycling or attempt to deliver for same any material that is classified as toxic waste, hazardous waste, medical or infectious waste or any other material that this facility is prohibited from accepting by law.

Authorized Representative Name (Printed) Linda J. Tirrell Company Naval Submarine Base New London

Authorized Representative Signature [Signature] Title: Hazardous Waste Program Mgr Date: 7-14-10

For VEXOR Use Only

Evaluated by: _____
Approved - Treatment: _____
Rejected - Reason: _____
Date Completed: _____
Price: _____/Unit _____
Approved By: _____ Date: _____



DYNECOL, INC.
6520 GEORGIA STREET
DETROIT, MICHIGAN 48211
PHONE: (313) 571-7140
FAX: (313) 571-7190

WASTE APPROVAL FORM

I. General Information					
Approval Number			Cust./Gen.Code:		
Generator Name:	Naval Submarine Base New London				
Address:	Crystal Lake Rd. & Rt. 12				
City:	Groton	State:	CT	Zip Code:	06349
Contact Name:	Linda J. Tirrell				
Phone Number:	860-694-4298		Fax Number:		
24 Hour Emergency #:					
EPA ID Number:	CT4170022020		SIC Code:		
Customer Name:	New England Disposal Technologies, Inc.				
Customer Contact:					
Address:	83 Gilmore Drive				
City:	Sutton	State:	MA	Zip Code:	01590
Phone Number:	508-234-4440		Fax Number:	508-234-4441	
24 Hour Emergency #:	800-698-1865				
II. Waste Description					
Waste Common Name:	Polaris Park Investigation Derived Waste				
Specific Process Generating the waste:					
Waste is generated during the installation and development of groundwater monitoring wells and and soil borings. The water was accumulated in drums during the investigation for future off-site disposal.					

III. Waste Composition (Must equal 100%)

Constituent	Actual % of representative sample	Min. % of waste stream	Max. % of waste stream
Groundwater		98	100
Surfactant, sediment, etc		0	2

III. Waste Characterization

A. Michigan Act 451 and EPA 40 CFR Information: (For the following, please use SW 846 test method for determination)

1. Is this a hazardous waste as defined by either R299.9212-9214 or 261 Subpart B,C, or D?

Check One: ☐ YES☒ NO

a) IF YES, please list all applicable waste codes:

b) IF NO, please list all applicable non-hazardous waste codes as defined by Michigan Act 451 Part 121:

--

2. Does this waste indicate a volatile organic concentration in excess of 500 ppm or the compounds listed in 40 CFR 265 Appendix VI?:

Check One: ☐ YES☒ NO

a) IF YES, please indicate constituents and concentrations:

3. Does the analysis indicate PCB's above the detection limit?

Check One: ☐ YES☒ NO

a) IF YES, does the waste contain PCB contamination from a source with a concentration greater than or equal to 50 ppm?

Check One: ☐ YES☐ NO

III. Waste Characterization (continued)

B. Benzene/NESHAP Information (For the following, please use SW 846 method 8020 and/or EPA 602 and/or 624 for determination)

1. Does the waste stream have a benzene concentration of 10 ppm or more?

Check One:

☐ YES☒ NO

IF YES, please indicate total benzene concentration of waste:

2. Does the waste stream contain greater than 10% water ?

Check One:

☒ Yes☐ NO

3. Does the generator manage wastes from facilities with Total Annual Benzene (TAB) greater or equal to 10 mg/year?

Check One:

☐ Yes☒ NO

IF YES, please indicate TAB quantity for generator facility:

C. Land Disposal Restriction Information (For the following, please see 40 CFR part 268.2 for definitions)

1. Does the waste stream contain less than 1% by weight Total Organic Carbon (TOC) and less than 1% by weight Total Suspended Solids?

Check One:

☒ YES (wastewater)☐ NO (Non-wastewater)

IV. General Characteristics (at 70 degrees F unless otherwise specified:

Color water clearpH 10.8☒

Liquid

☐

Sludge/Slurry

☐

Solid

Odor:

☒

None

☐

Strong

☐

Mild

Phases

☒

Single Layer

☐

Double Layer

☐

Multi-Layer

V. Shipping Information

A. Determination of shipping name as defined by 29 CFR 172.101:

1. Proper Shipping Name:

Non RCRA Non DOT Regulated Waste

2. Hazard Class:

3. UN/NA Number:

4. Packing Group (Circle one):

I

II

III

None

B. Shipping Container (Circle one)

Bulk

☒ Drums

Pails

Totes

Roll Off

Other:

C. Waste Volume

8 - 10 drums

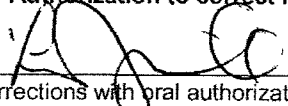
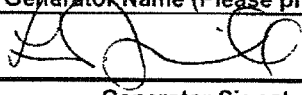
D. Shipping Frequency (Circle one)

Weekly

☒ Monthly☐ Quarterly

Yearly

One Time Only

DYNECOL, INC. Waste Approval Form PAGE 4		Approval Number:	
VII. Comment Section			
Please list any additional comments concerning this waste stream below:			
VIII. Generator Authorizations			
A. Authorization to correct material profile sheet			
 (generator signature) hereby give authorization for Dynecol, Inc. to make corrections with oral authorization to establish consistency with the results of sample analysis and/or applicable federal and state regulations and the information on this profile. These changes WILL NOT include the addition or removal of waste codes and waste constituents which must have written authorization to be changed by the generator. I understand that Dynecol reserves the right to reject any material that does not conform to specifications described in profile.			
B. Certification			
I certify, under penalty of law, that I have personally examined, and am familiar with, the waste profiled through knowledge of the waste, and I believe the information submitted to be true, accurate, and complete.			
Linda J. Tirrell		Hazardous Waste Program Mgr.	
Generator Name (Please print or type)		Title	
		7-14-10	
Generator Signature		Date	
IX. Revision Section			
Please list any revisions made to form			
Revision	Date of Revision	Generator Authorization	
X. Dynecol Use only			
A. Approval Information			
CMF WASTES:		PLANT WASTES:	
Primary outbound approval number		Plant treatment code	
Off-site management code		On-site management code:	
WAF Initiator signature:			
Approved by:		Date:	

APPENDIX H

Data Validation Packages



Tetra Tech NUS

INTERNAL CORRESPONDENCE

TO: D. KANE **DATE:** July 26, 2010
FROM: MEGAN CARSON **COPIES:** DV FILE
SUBJECT: ORGANIC DATA VALIDATION- VOC, ETPH, AND TOC
CTO WE56, NSB NEW LONDON
SAMPLE DELIVERY GROUP (SDG) J0988

SAMPLES: 23/Soil/
06SB01-1416 06SB01-1618 06SB02-1719
06SB02-2325 06SB03-1416 06SB03-2224
06SB06-1517 06SB06-2224 06SB07-1214
06SB07-1416 06SB08-1214 06SB08-1416
06SB09-1214 06SB09-1416 06SB11-0810
06SB11-1012 06SB12-1214 06SB12-1416
06SB13-1012 06SB13-1214 06SB14-0810
06SB14-1012 06SBDUP01

2/Water/
06TBSO-051310 06TBSO-051910

OVERVIEW

The sample set for CTO WE56, NSB New London, SDG J0988, consists of twenty three (23) soil environmental samples and two (2) trip blanks. This SDG contained one field duplicate pair: 06SBDUP01/06SB03-2224

All samples were analyzed for select volatile organic compounds (VOC) namely, benzene, ethylbenzene, methyl t-butyl ether, toluene, and total xylenes. All samples (except 06TBSO-051310 and 06TBSO-051910) were analyzed for extractable total petroleum hydrocarbons (ETPH). Samples 06SB01-1618 and 06SB09-1214 were also analyzed for total organic carbon (TOC). The samples were collected by Tetra Tech NUS on May 12th, 13th, 14th, 17th and 19th 2010 and analyzed by Spectrum Analytical Inc. All analyses were conducted in accordance with SW-846 Method 8260B (VOC) , Connecticut ETPH, and Walkley-Black (TOC) analysis and reporting protocols. A Tier 3 data validation was performed on the referenced samples. The data contained in this SDG were validated with regard to the following parameters:

- * • Data Completeness
- Holding Times
- * • GC/MS Tuning
- * • Initial/Continuing Calibrations
- * • Laboratory Method/Field Blank Results
- Surrogate Recoveries
- * • Laboratory Control Spike/Laboratory Control Spike Duplicate Results
- Matrix Spike/Matrix Spike Duplicate Results
- Internal Standards
- * • Field Duplicate Precision
- * • Compound Quantitation
- * • Compound Identification
- * • Detection Limits

The asterisk (*) indicates that all quality control criteria were met for this parameter. Qualified (if applicable) analytical results are summarized in Appendix A. Results as reported by the laboratory are presented in Appendix B. Appendix C contains Region I worksheets, and Appendix D contains the documentation to support the findings as discussed in this data validation report. The attached Table summarizes the validation qualifications which are based on the following information:

Matrix spike and matrix spike duplicate:

The matrix spike and matrix spike duplicate for sample 06SB06-2224 had percent recoveries less than quality control limits for benzene, toluene, ethylbenzene, m,p-xylene, o-xylene, and total xylene. Non-detect results for sample 06SB06-2224 were qualified as estimated (UJ).

Surrogates:

The following samples had percent recoveries greater than the upper quality control limit for VOC surrogates:

<u>Sample</u>	<u>Surrogate</u>
06SB01-1416	Toluene-d8, Bromofluorobenzene
06SB01-1618	Toluene-d8, Bromofluorobenzene
06SB02-2325	Bromofluorobenzene
06SB06-1517	Bromofluorobenzene
06SB09-1416	Bromofluorobenzene

Positive results were qualified as estimated (J).

Sample 06SB13-1214 had a percent recovery less than the lower quality control limit for VOC surrogate bromofluorobenzene. Nondetected results were qualified as estimated (UJ).

The following samples had percent recoveries were outside quality control limit(above upper limit –UL or below lower limit – LL) for ETPH surrogates:

<u>Sample</u>	<u>Surrogate</u>	<u>Greater/Less than QC limits</u>
06SB01-1618	5a-Androstane	<LL
06SB02-1719	ortho-terphenyl	>UL
06SB06-1517	ortho-terphenyl	<LL
06SB11-0810	5a-Androstane, ortho-terphenyl	<LL
06SB11-1012	5a-Androstane	<LL
06SB12-1214	5a-Androstane	<LL
06SB13-1012	5a-Androstane, ortho-terphenyl	<LL
06SB13-1214	5a-Androstane, ortho-terphenyl	<LL

All of the above samples were re-extracted and re-analyzed except for samples 06SB01-1618 and 06SB02-1719. The surrogate recoveries in the re-extracted samples met quality control limits but all of the samples were extracted more than 30 days from date of collection. The original analyses were used for validation. Positive and nondetected results were qualified as estimated, (J) and (UJ), respectively.

ADDITIONAL COMMENTS

VOC samples 06SB01-1416 and 06SB01-1618 were reanalyzed due to results exceeding calibration limits.

Sample 06SB01-1618 had a recovery for internal standard 1,4-dichlorobenzene-d4 (<50%). No validation action was required as no sample results were quantified using this internal standard.

Laboratory control sample 51810 had a percent recovery greater than the quality control limit of 126% for methyl tert-butyl ether. Samples in preparation batch 51810 were affected. No validation action was warranted as all sample results were non-detected.

The following VOC samples were analyzed at dilutions to bring target compounds into calibration range:

<u>Sample</u>	<u>Dilution Factor</u>	<u>Compound</u>
06SB01-1416ME	50X	m+p-xylene, o-xylenes, total xylenes
06SB01-1618ME	50X	ethylbenzene, m+p-xylene, o-xylenes, total xylenes
06SB09-1214	50X	All compounds
06SB14-0810	50X	All compounds
06SB14-1012	50X	All compounds

The following ETPH samples were analyzed at dilutions to bring target compounds into calibration range:

<u>Sample</u>	<u>Dilution Factor</u>
06SB01-1416	5X
06SB14-0810RE	20X
06SB14-1012RE	20X

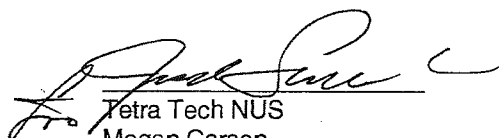
EXECUTIVE SUMMARY

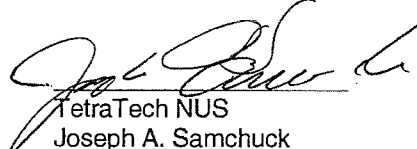
Laboratory Performance Issues: Surrogate non-compliances for VOC and ETPH resulted in the qualification of data.

Other Factors Affecting Data Quality: Low matrix spike and matrix spike duplicate recoveries in the volatile fraction of sample 06SB06-2224 resulted in qualification of results.

The data for these analyses were reviewed with reference to the Region I EPA "Data Validation Functional Guidelines - Part II" (12/96) and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (January 2006). The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the DoD QSM."


Tetra Tech NUS
Megan Carson
Chemist 1/ Data Validator


TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:

Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Regional Worksheets
Appendix D – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

- A = Lab Blank Contamination
- B = Field Blank Contamination
- C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
- C01 = GC/MS Tuning Noncompliance
- D = MS/MSD Recovery Noncompliance
- E = LCS/LCSD Recovery Noncompliance
- F = Lab Duplicate Imprecision
- G = Field Duplicate Imprecision
- H = Holding Time Exceedance
- I = ICP Serial Dilution Noncompliance
- J = GFAA PDS - GFAA MSA's $r < 0.995$
- K = ICP Interference - includes ICS % R Noncompliance
- L = Instrument Calibration Range Exceedance
- M = Sample Preservation Noncompliance
- N = Internal Standard Noncompliance
- N01 = Internal Standard Recovery Noncompliance Dioxins
- N02 = Recovery Standard Noncompliance Dioxins
- N03 = Clean-up Standard Noncompliance Dioxins
- O = Poor Instrument Performance (e.g. base-line drifting)
- P = Uncertainty near detection limit ($< 2 \times \text{iDL}$ for inorganics and $< \text{CRQL}$ for organics)
Other problems (can be any number of issues; e.g. poor chromatography, interferences, etc.)
- Q = etc.)
- R = Surrogates Recovery Noncompliance
- S = Pesticide/PCB Resolution
- T = % Breakdown Noncompliance for DDT and Endrin
% Difference between columns/detectors $> 25\%$ for positive results determined via
- U = GC/HPLC
- V = Non-linear calibrations; correlation coefficient $r < 0.995$
- W = EMPC result
- X = Signal to noise response drop
- Y = Percent solids $< 30\%$
- Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02634 SDG: J0988 FRACTION: OV MEDIA: WATER	NSAMPLE	06TBSO-051310	06TBSO-051910
	LAB_ID	J0988-08A	J0988-25A
	SAMP_DATE	5/13/2010	5/19/2010
	QC_TYPE	NM	NM
	UNITS	UG/KG	UG/KG
	PCT_SOLIDS	100.0	100.0
	DUP_OF		
PARAMETER	RESULT	VQL	QLCD
BENZENE		5 U	5 U
ETHYLBENZENE		5 U	5 U
M+P-XYLENES		5 U	5 U
METHYL TERT-BUTYL ETHER		5 U	5 U
O-XYLENE		5 U	5 U
TOLUENE	1.1 J	P	5 U
TOTAL XYLENES		5 U	5 U



Tetra Tech NUS

INTERNAL CORRESPONDENCE

TO: D. KANE **DATE:** AUGUST 4, 2010
FROM: EDWARD SEDLMYER **COPIES:** DV FILE
SUBJECT: ORGANIC DATA VALIDATION- VPH AND ETPH
CTO WE56, NSB NEW LONDON
SAMPLE DELIVERY GROUP (SDG) J1250
SAMPLES: 7/Water
06MW01-20100615 06MW02-20100615 06MW03-20100615
06MW04-20100615 06MW05-20100615 06MW10-20100615
TRIP BLANK

OVERVIEW

The sample set for CTO WE56, NSB New London, SDG J1250, consists of six (6) aqueous environmental samples and one (1) trip blank. One field duplicate pair was associated with this SDG: 06MW05-20100615 / 06MW10-20100615.

All samples were analyzed for volatile petroleum hydrocarbons (VPH). All samples, except the TRIP BLANK were analyzed for extractable total petroleum hydrocarbons (ETPH). The samples were collected by Tetra Tech NUS on June 16th, 2010 and analyzed by Mitkem Laboratories and Spectrum Analytical Inc. All analyses were conducted in accordance with Massachusetts Department of Environmental Protection (MADEP) VPH and Connecticut ETPH analysis and reporting protocols. A Tier 3 data validation was performed on the referenced samples. The data contained in this SDG were validated with regard to the following parameters:

- * • Data Completeness
- * • Holding Times
- Initial/Continuing Calibrations
- * • Laboratory Method/Field Blank Results
- * • Surrogate Recoveries
- * • Laboratory Control Spike/Laboratory Control Spike Duplicate Results
- * • Matrix Spike/Matrix Spike Duplicate Results
- * • Laboratory / Field Duplicate Precision
- * • Compound Quantitation
- * • Compound Identification
- * • Detection Limits

The asterisk (*) indicates that all quality control criteria were met for this parameter. Qualified (if applicable) analytical results are summarized in Appendix A. Results as reported by the laboratory are presented in Appendix B. Appendix C contains Region I worksheets, and Appendix D contains the documentation to support the findings as discussed in this data validation report. The attached Table summarizes the validation qualifications which are based on the following information:

CALIBRATIONS

The continuing calibrations analyzed on June 29, @ 11:05, 18:25, and 20:52 had a percent difference (%D) for Octane (C8) greater than the 25% quality control limit for the front column. However, the response factor of TPH C9-C36, which was used to quantify results was acceptable.

ADDITIONAL COMMENTS

Samples 06MW01-20100615, 06MW02-20100615, 06MW03-20100615, 06MW04-20100615, 06MW05-20100615, and 06MW10-20100615OC required dilutions because of results greater than the linear calibration range of the instrument. The laboratory did not provide an undiluted analysis and this accounts for the elevated detection limits for the nondetected compounds.

Positive results reported at concentrations between the method detection limit and laboratory reporting limit were qualified as estimated (J).

EXECUTIVE SUMMARY

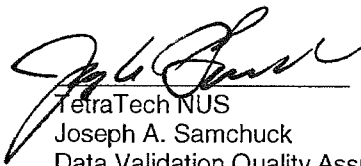
Laboratory Performance Issues: None

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the Region I EPA "Data Validation Functional Guidelines - Part II" (12/96) and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (January 2006). The text of this report has been formulated to address only those problem areas affecting data quality.



Tetra Tech NUS
Edward Sedlmyer
Chemist/Data Validator



TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:

- Appendix A – Qualified Analytical Results
- Appendix B – Results as Reported by the Laboratory
- Appendix C – Regional Worksheets
- Appendix D – Support Documentation



Tetra Tech NUS

INTERNAL CORRESPONDENCE

TO: D. KANE **DATE:** July 26, 2010
FROM: MEGAN CARSON **COPIES:** DV FILE
SUBJECT: ORGANIC DATA VALIDATION- VOC, ETPH, AND TOC
CTO WE56, NSB NEW LONDON
SAMPLE DELIVERY GROUP (SDG) J1056

SAMPLES: 19/Soil/
06SB04-1214 06SB04-1618 06SB05-1416
06SB05-1618 06SB10-0810 06SB10-1214
06SB15-0810 06SB15-1012 06SB16-2022
06SB16-2628 06SB17-0810 06SB17-1012
06SB18-0810 06SB18-1012 06SB19-0406
06SB19-0810 06SB20-0103 06SB20-0406
06SBDUP02

3/Water/
06RB-051810 06TBAQ-051810 06TBSO-052110

OVERVIEW

The sample set for CTO 439, NSB New London, SDG J1056, consists of nineteen (19) soil environmental samples, one (1) rinsate blank, and two (2) trip blanks. This SDG contained one field duplicate pair: 06SBDUP02/06SB10-1214.

All samples were analyzed for select volatile organic compounds (VOC), namely benzene, ethylbenzene, methyl t-butyl ether, toluene, and total xylenes. All samples (except 06TBAQ-051810 and 06TBSO-052110) were analyzed for extractable total petroleum hydrocarbons (ETPH). 06SB20-0103 was also analyzed for total organic carbon (TOC). The samples were collected by Tetra Tech NUS on May 17 through 21 2010 and were analyzed by Spectrum Analytical Inc. All analyses were conducted in accordance with SW-846 Method 8260B (VOC), Connecticut ETPH, and Walkley-Black (TOC) analysis and reporting protocols. A Tier 3 data validation was performed on the referenced samples. The data contained in this SDG were validated with regard to the following parameters:

- * • Data Completeness
- Holding Times
- * • GC/MS Tuning
- * • Initial/Continuing Calibrations
- * • Laboratory Method/Field Blank Results
- Surrogate Recoveries
- * • Laboratory Control Spike/Laboratory Control Spike Duplicate Results
- * • Matrix Spike/Matrix Spike Duplicate Results
- * • Internal Standards
- * • Field Duplicate Precision
- * • Compound Quantitation
- * • Compound Identification
- * • Detection Limits

The asterisk (*) indicates that all quality control criteria were met for this parameter. Qualified (if applicable) analytical results are summarized in Appendix A. Results as reported by the laboratory are presented in Appendix B. Appendix C contains Region I worksheets, and Appendix D contains the documentation to support the findings as discussed in this data validation report. The attached Table summarizes the validation qualifications which are based on the following information:

Holding Time

VOC sample 06SB18-0810 was analyzed 1 day past the 14 day hold time. The nondetected results in the aforementioned sample were qualified as estimated, (UJ).

ETPH sample 06SB16-2628 was extracted 1 day past the 14 day hold time. The nondetected result in the aforementioned sample was qualified as estimated, (UJ).

Surrogates:

Three samples contained surrogate recoveries below the lower quality control limit for the ETPH fraction. The nondetected results in the aforementioned samples were qualified as estimated, (UJ).

<u>Sample</u>	<u>Surrogate</u>	<u>Less than the lower QC limit</u>
06SB16-2022	5a-Androstane	<LL
06SBDUP02	5a-Androstane	<LL
06SB19-0406	5a-Androstane	<LL

Two of the above samples (06SB16-2022 and 06SB19-0406) were re-extracted and re-analyzed and the surrogate recoveries met quality control limits. The blind field duplicate sample 06SBDUP02 was not re-extracted. It should be noted that because the re-extractions were performed over 30 days from collection, the original analyses were used for validation. The surrogate recoveries associated with the original noncompliant samples were marginally below the lower quality control limit.

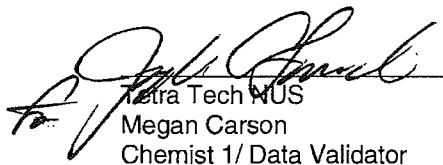
EXECUTIVE SUMMARY

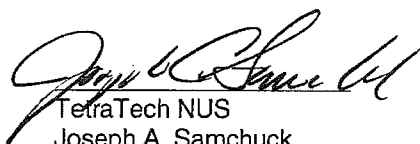
Laboratory Performance Issues: VOC and ETPH hold time non-compliances resulted in the qualification of data. Surrogate non-compliances for ETPH resulted in the qualification of data.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the Region I EPA "Data Validation Functional Guidelines - Part II" (12/96) and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (January 2006). The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the DoD QSM."


Tetra Tech WUS
Megan Carson
Chemist 1/ Data Validator



TetraTech NUS

Joseph A. Samchuck

Data Validation Quality Assurance Officer

Attachments:

Appendix A – Qualified Analytical Results

Appendix B – Results as Reported by the Laboratory

Appendix C – Regional Worksheets

Appendix D – Support Documentation